

SAFETY

DECEMBER 1959

Two Sections • Section One

Education

A MAGAZINE FOR TEACHERS AND ADMINISTRATORS



Safety
Renaissance
Per

Communications called for . . .

"We tell them so much that I think they know it by heart and don't really hear us any more."

A 10 year old school safety patrol made that statement. He was describing problems of the patrol for an adult audience at the National Safety Congress and told how it is often difficult to keep students behind the line at traffic corners.

With this mature insight, he was telling teachers and administrators—in his simple language—of the communications problem. He recognized the need for improved communications, and in essence, was asking how can words reach students? Many Congress speakers (see page 20) had some answers worth reading.

Cover boys . . .

The president honors a vice president.

NSC President Howard Pyle presented Vice President for Schools and Colleges Lowell B. Fisher an award for "outstanding and devoted service as vice president from 1953 to 1959." Fisher, chairman of the North Central Association of Colleges and Secondary Schools, was elected to continue his able leadership for this year.

Discomfort Index . . .

"The discomfort index is running high these days for teachers, administrators and parents—and consequently for the students," Ned Morningstar, assistant principal at Chicago's Francis Parker School, told Congress delegates. "We, as adults working with children, are under increased pressure. We are having to make many adjustments and are bewildered by the rapid changes. The children sense our feelings. This is what I would call the discomfort index in education in regard to safety."

To decrease the discomfort index, Morningstar suggests: being aware of current events, scrutinizing carefully our set of values and standards in relation to the child and his parents, remembering the importance of having the child's confidence and doing the best job we can to make the learning situations ones where the minor mistakes that insure growth are permitted, and the major mistakes that hinder growth are avoided.

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S A F E T Y

Education

A MAGAZINE FOR TEACHERS AND ADMINISTRATORS

Volume XXXIX No. 4 Section One

Nancy Nupuf Margolis, Editor
Robert O. Jones, Advertising Manager

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Police aid school safety patrol in action—timing, recording and observing a vehicle entering the speed check zone.

By Reid I. McCloskey

Patrols Slow Down

FRUSTRATED about cars speeding through your school zone? So were the students and their safety sponsor at Roosevelt Elementary School, Carlsbad, N. M. Deciding to tackle the problem themselves, they slowed down cars to the legal 15 mph around their school.

Boys and girls not only slowed down traffic, but they had lots of fun, and stimulated fellow students in safety consciousness as they attacked their problem.

Police in the city cooperated fully with the students. A system of checking traffic and notifying persons traveling at excess speeds was developed. The students became the traffic checkers. With the cooperation of the Carlsbad Police Department, motorists were notified if they exceeded the speed limit.

Just prior to Christmas this past year, patrol

members decided to do something to slow down the traffic through their school zone. The police department had made constant checks on the traffic. However, with a limited number of patrol cars, and 15 school zones in the city, it was difficult for them to cover all the school zones.

In a meeting with their school safety sponsor, members of the safety patrol suggested timing the traffic over a marked distance. The safety sponsor accepted the idea and they worked together to plan their program.

The boys and girls worked out time and distance formulas in arithmetic class, so that they would know exactly the speed a motorist was moving when he covered a marked distance in a given number of seconds.

Their first course was marked for 220 feet. A card was made out for cars driving the distance in from 10 to 3 seconds. If motorists covered the course in 10 seconds or more, they

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were complying with the speed limit. If they covered it in a lesser time, for example, 6 seconds they were traveling 25 mph. With this problem solved the students then looked for an accurate method of timing the cars.

An L shaped box was constructed with a tilted mirror in the center. This box, mounted on a pipe, was set beside the road at the beginning of the speed course. When a car passed the box, a boy standing with a stop watch at the end of the course caught the flash and started the watch. One boy took care of the stop-watch and another called out the car license number. A third recorded the car license as it was called off by the observer, and the number of seconds the car took to cover the course, as called out by the timer. The school custodian was also involved. Using the boys' ideas, he constructed the mirror mechanism and stand.

Members of the police department assisted the boys. They suggested that a longer distance as used by the police department might be more accurate to measure time since it would rule out minor errors in starting the stop-watch. Patrol members adopted the distance recommended, 352 ft., and the per second speeds sug-



Using mirror-box, patrols time cars entering speed zone.

gested. These worked out as follows: 4 seconds—60 mph, 5 seconds—48 mph, 6 seconds—40 mph, 7 seconds—34 mph, 8 seconds—30 mph, 9 seconds—26 mph, 10 seconds—24 mph, 11 seconds—21 mph, 12 seconds—20 mph, 13 seconds—18 mph, 14 seconds—17 mph, 15 seconds—16 mph, and 16 seconds—15 mph.

The patrol members stood by the curb, not in the street, and they limited their measuring distances to areas immediately around the school. Checks were made each morning, noon and afternoon during the times the students were crossing streets to and from school.

Did the speed timing program work? It did! According to the safety sponsor, "car speed through our school zone slowed appreciably each day the boys checked the traffic." Daily records turned in by the boys indicated the drop in speed by the cars.

School representative and the police department developed a courtesy letter to be mailed

to motorists who frequently violated the speed limit, or who were observed exceeding the speed limit two times. The patrol member turned in the license number, and the police department identified the owner of the vehicle and sent the letter. The letter reads as follows:

Dear Motorist:

It has been observed by the _____ School Patrol that on _____ at _____ (a.m.-p.m.) you were clocked at _____ m.p.h. through the school zone. We would like to call to your attention this is the _____ time you were observed as exceeding the speed limit. For the safety of the lives of the children of Carlsbad, we ask that you observe our school zone speed limit of 15 mph.

Please let us thank you in advance for your future consideration.

City School

Chief, Carlsbad Police Department

The Roosevelt School system for slowing vehicle traffic worked for them. It slowed traffic, made students conscious of the vehicle problem, and stimulated life-like problems in the classroom. If you too have a traffic problem and are frantic for a solution, consider the program developed by this safety patrol for adoption at your school.



It's All

By Helen Manley



A study in sportsmanship and safe practices — boys and girls take turns on apparatus as they travel in one direction. Using strong wooden boards, which separate cars stationary all day, youngsters develop balance skills and body muscles.



Children are protected by jumping in soft sand pit. Right: gym sports divided into small, safe groups.

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SAFETY EDUCATION

In The Game

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No. 4

PHYSICAL Education is education through the physical. It involves movement which, of course, means action—action of people. These people may move fast or slowly, skillfully or awkwardly, thoughtfully or carelessly, and with or without external protection. Because moving is more hazardous than standing, standing more than sitting, physical education has a greater accident potential than phases of the school curriculum which involve only sitting. The efforts, therefore, of all teachers of physical education should concentrate on knowing and practicing the three main accident preventives: education, supervision and protection.

Physical education classes should provide the "know-how" of movement. Children in the elementary schools learn to run without falling, to climb safely and to land on both feet without jar. It is here that they master the skills of body coordination, the ability to fall without injury and to catch hard balls without breaking fingers. During these years they acquire strength and endurance that give their bodies the power to carry through any day's activity with efficiency and without over-fatigue. In the secondary schools, the physical skills and power to participate in strenuous activity are developed.

Young America enters activity with vim and vigor; when he learns to walk he goes everywhere regardless of high stone steps, moving cars, or swinging bats. Later he races in spite of slippery puddles and hard walls as boundaries. Soon he is in jeans, tackling a boy three

years his junior in backlot football. In addition to education, he therefore needs protection and supervision against the impulsive reflex which rushes him into the street to retrieve a ball and the immature judgement which might cause him to dive into a shallow pond. Education, protection and supervision are closely related. A child is taught to use the apparatus, is protected by a soft landing bed, and is supervised for correct and accident-free procedure.

One might think that protection would be less important as the child grows into the secondary school age. Truly, his judgement improves and he has increased his power in movement. On the other hand, he now participates in more strenuous activities. These are the years of sports interest and interscholastic competition, which involve much exertion and often physical contact. For these, the boys and girls should be fully protected. For basketball, a sport not too hazardous, such things as protection and clearance at the end-lines, flush-wall attachments, clean resilient floors, well fit shoes and face protection are necessary. In baseball, these field precautions are important:

1. Bases securely fastened with four pegs to prevent sprains and fractures while sliding and rounding base.
2. Pitching rubber in good shape (not warped), and flush with ground.
3. Home plate flush with ground.
4. Infield properly dragged to prevent badly bouncing balls and facilitate proper sliding to prevent abrasions or "strawberries."

Those involving education and supervision are:

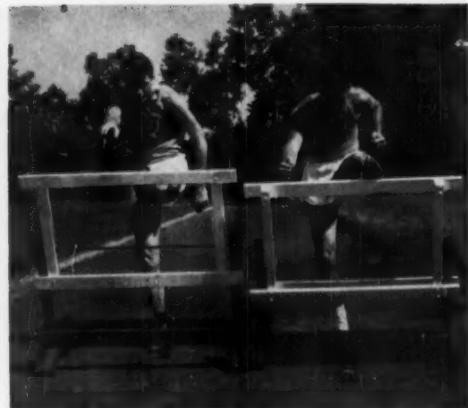
1. Students cautioned never to turn back on batter during batting practice.
2. Students cautioned not to throw balls while batter is swinging or pitcher is pitching during batting practice.

Track and field athletics are termed less hazardous sports. However, great caution should be taken in the constant care and the supervision





Wood exposed in pole vault pit above means trouble. Right: old type hurdle on left dangerous (middle bar increases



height); new rocker hurdle (right) lowers as hit and rocks.

of the surface and curbs of the running tracks and the field areas.

Many new materials are in use now to give the high school boys the safest experience in playing football. Shock guard knee, hip and thigh pads are put in the uniforms. These are often made of ensollite and vinyl foam and have air cushion construction to prevent vibration and shock. Rib protectors are being made similarly and helmets have guards to protect teeth and nose.

Concern for equipment and facilities conducive to safety is only one element of protection for school children. The safety policies of the administration and the close cooperation of administration, maintenance and teaching personnel are basic for protection. This would run the gamut of safe buildings, clean floors, all the way to the most important—highly trained physical education teachers. High school boys



Hip and shoulder guards



Knee and thigh guards

in competition are frequently stimulated to go beyond their abilities by overzealous audiences, coaches or other psychological urges. Protection through good administration is essential to prevent this. Such protection would include:

1. Thorough physical and medical check-up.
2. Well qualified coaches.
3. Proper scheduling with consideration of number and times for games and equality in competition.
4. Playing by specifically designated rules.
5. Skillful and trained officials.
6. Accident reporting and research into causes of accidents.
7. Activity limited to the season in progress.
8. Activities and competition limited to approved age levels.
9. First aid and medical attention readily available.

It is estimated that 30 per cent to 40 per cent of the accidents in interscholastic sports could be eliminated if there were effective leadership and administration combined with safe playing areas and proper equipment.

Physical education is a vulnerable phase of the curriculum safety-wise. Here then, the greatest safety valve is needed, i.e., an administrative policy which provides:

1. time in the curriculum and safe facilities for teaching physical education;
2. well-qualified physical education teachers for all grade levels;
3. adequate and safe supervision and maintenance of facilities and equipment;
4. latest scientific personal equipment for boys and girls at play●

Student Councils

Meet The Need



Safety projects of the students, by the students and for the students can aid in saving 3,000 collegians' lives, preventing injury and instilling lifelong attitudes.

The following facts make the urgent need for safety education obvious:

- More youths of college age (using ages 15 to 24 for statistical information) are killed each year in accidents than from all other causes of death combined.
- On the basis that one out of every four youths of this age is attending college, it is estimated that more than 3,000 college students each year meet untimely deaths due to accidents.
- Surveys made by the National Safety Council and by certain colleges show that as high as one out of four or five students has an accident while attending college, severe enough to require treatment at the health service or hospital.
- The chances are 1 in 18 that a residence building on your campus will be damaged or destroyed by fire this year, based on reports and estimates of the National Board of Fire Underwriters and the National Fire Protection Association.
- The greatest single cause of deaths among college students are traffic accidents. The

By Daniel P. Webster

typical college each year loses a number of students who are killed, or injured so severely that they are forced to drop out of school.

The purpose of a campus safety program should be twofold: to provide for safety of students while attending college; and to instill habits which will carry over into out-of-school situations and in later life.

"Safety Is Everybody's Business" and thus it is the responsibility of every student on a college or university campus. While safety on the campus is a primary concern of the administration, there are many opportunities for students through group action to inaugurate, participate and assist in a variety of safety activities.

Selecting a Safety Project

In preparing for safety projects there are a number of criteria which should be considered in planning both immediate and long-range programs:

1. **Is there a need for the project?** There would probably be little need for a bicycle safety campaign at a college located in hilly terrain where few students use bicycles. On the

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other hand, some universities are over-populated with bikes, threatening riders, motorists and pedestrians constantly. Most colleges today look like a continual downtown rush hour with the number of automobiles on campus. Student safety needs must be met by marking parking areas, making traffic counts, conducting voluntary motor vehicle inspections. Be sure of your facts, and the need. Find out if the college has reporting procedures so that you can determine the numbers and causes of accidents, fires and other incidents.

2. Will the project contribute to accident prevention? One-shot drives and campaigns have their place in a safety program. But their effectiveness is usually short lived. An example of a worthwhile short term project is the "Home for the Holidays—and Back!" traffic safety campaign conducted just prior to Easter or Christmas. Make sure your project will meet your objectives. Contests on safety posters, articles and similar devices are useful as parts of broader programs.

3. Is the project a logical one? In selecting a project, seek the advice of staff and faculty members to make certain that it will not conflict with or duplicate services or activities of some other group. This will, of course, depend upon the conditions at your college. For example, a voluntary inspection of student housing is usually considered appropriate, whereas inspections of high pressure boilers or laboratories might not come within the scope of a student project. Avoid projects which are regular administrative responsibilities of the college and in which student assistance is not needed. It is particularly helpful to the administration

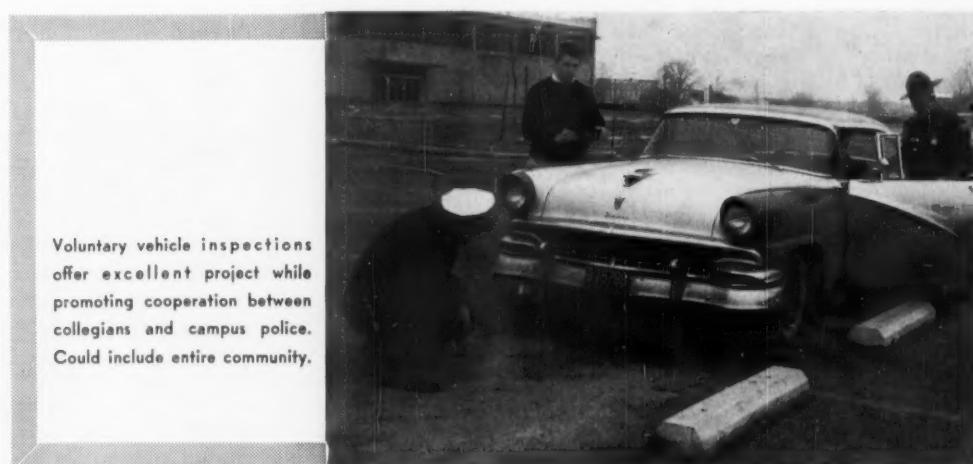
to develop projects in areas of unsupervised student activities, such as recreational, driving and living practices.

4. Is the project timely? Timing is vital! An activity involving student participation, publicity through campus newspaper and radio, preparation of special materials and committees to carry out specified functions will require a number of months to properly develop all steps. Don't start a project if there isn't time to carry it out properly. Also, make certain that the project is scheduled for the time of year when exposure to accidents is the highest, or immediately preceding such exposure.

Don't Try to Do It Alone!

The easiest way to run afoul with your project is to launch it without consulting other persons on the campus and in the community who have an interest or responsibility in the area of activity. You could lose much valuable support which could spell the difference between success or failure. Consider the following steps:

1. If membership is too large to develop plans as a body, appoint a steering or planning committee to investigate project possibilities and report back to the membership.
2. Without making definite commitments (pending approval of the entire membership) this committee should:
 - find out who on the campus has reliable information about accidents and safety needs.
 - secure this information, and suggestions for a project helpful to the college.



Voluntary vehicle inspections offer excellent project while promoting cooperation between collegians and campus police. Could include entire community.

—determine college and community personnel or organizations concerned with the project. This will vary depending on the project, but may include:

<i>College</i>	<i>Community</i>
Faculty advisor	
College safety engineer or director of traffic and security	Police Chief or traffic safety director
Deans of students	Fire chief or marshal, head of building department
Director of Safety Education	Insurance company representatives
Director of public relations, Campus newspaper editor, director of campus radio	Newspaper editors and radio station directors

- outline the various steps in the project, indicating tentative deadlines for completing each step.
- list special committees necessary to carry out the steps, and the functions of individuals both within and outside of the organization.

3. Submit the project to the entire membership for refinement and adoption following approval and indication of support of other organizations and individuals concerned.

Suggested Projects

Safely Home and Back for the Holidays Program—This project stresses safe driving during holidays, especially applicable for the Christmas and Easter vacation periods. Stories, slogans,

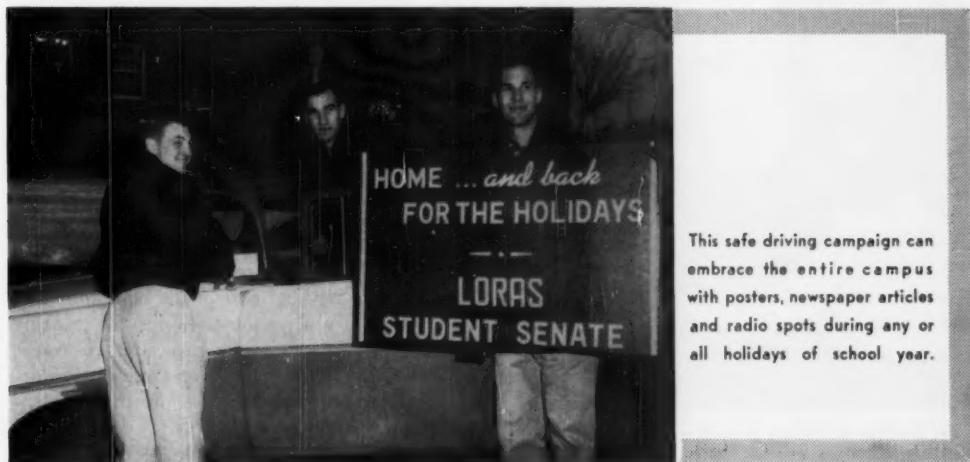
pictures and spot announcements can be used effectively through posters, car window stickers, campus newspaper, campus radio, community news media and stencil slogans using washout paint. The college director of public relations can be of assistance in coordinating the entire program.

Voluntary Motor Vehicle Check—This program requires the cooperation of the campus security police, local police or state highway patrol because of the need for special assistance.

Through cooperative planning: set dates, secure location, obtain necessary equipment, determine factors to be checked, publicity, and train students who will assist police or other professionals. If your community is planning a motor vehicle check, offer to assist in its conduct, including the campus.

Voluntary Housing Inspection—Of the threats to students' safety during the winter months, one of the most serious is fire. Studies show that the college fires which are most costly in human lives break out in residence buildings rather than in classroom or administrative buildings. For this reason a voluntary inspection program or competition is needed. This can be followed with a spring clean-up campaign, as a means of ridding student residences of unneeded or discarded materials which could spark fires or accidents.

The voluntary housing inspection involves rating all the housing units on the campus according to their status of fire and safety conditions and practices. Interest in the findings can be enhanced if the inspection is made com-



This safe driving campaign can embrace the entire campus with posters, newspaper articles and radio spots during any or all holidays of school year.

petitive by giving awards, possibly obtained from local merchants, to the best fraternity, sorority, co-op, men's and women's dormitories. Promote the competition through all available public relations media. The project requires development and use of a checklist or other device to identify unsafe conditions and practices and at the same time suggest corrective action. It further requires the organization of inspectional teams of technical and lay personnel, as well as members of the housing units. Your organization should serve as the organizing and coordinating body, but preferably not as inspectors.

Fire Extinguisher Demonstration (Outdoor activity)—The purpose is to acquaint students with the types and special uses of extinguishers involving actual demonstration. Develop plans with campus safety officer, director of buildings and grounds and local fire department. In many instances, the local fire department may be able to supply equipment and personnel for the demonstration. This project could be utilized between halves of a football game or in connection with the activities of a safety day or week.

Traffic and Pedestrian Survey—If traffic flow, parking and pedestrian movement are problems on your campus, offer the services of your club or group. Assist campus authorities by conducting surveys. The college or university adminis-

tration can use these findings in developing future plans.

Other activities related to this project can include the development of a student traffic court and assistance in the program of student automobile registration.

Crosswalk Markings—Many colleges and universities have found permanent and temporary crosswalk markings helpful in reducing pedestrian accidents. Both incorporate the use of stencils, but in the temporary markings a water soluble paint of limited durability is used. Develop plans in cooperation with administrative office responsible for traffic. Determine particular hazard spots and utilize cautions and slogans desired. Slogans are effective for short duration campaigns.

Half Time Demonstrations—These could include fire safety demonstrations conducted by the local fire department particularly in regard to housing, and driver reaction time and stopping distance demonstrations. Consult local traffic authorities, state safety council or National Safety Council for further information.

Safety For Special Events—This involves the development of special safety committees to study, develop safety rules and provide inspections of special student projects such as:

- a. Parades (traffic control and construction of floats)
- b. Rallies and bonfires
- c. Decorations for homecoming, dances and other special events

Safety Day or Week—This is a coordinated, educational program utilizing all public relations media, special film showings, addresses on safety, demonstrations, safety displays and safety competition. In addition, other activities discussed above can become a part of the overall program. Plans should be developed in cooperation with campus authorities. It is effective to have a proclamation from the college or university president.

Printed Safety Materials—The distribution of posters and leaflets can be used in most safety programs. Not only are they effective on the campus, but may be used in the community as well. There is always the possibility of creating special materials for your program. However, printed materials are available from service organizations, automobile clubs, insurance companies, community and state safety councils and the National Safety Council●



Under direction of steering committee, students voluntarily inspect own housing unit for fire, fall and other hazards.

Welding and Cutting Safely



Statistics

1. More pupils are hurt in school shops than in any other place inside the school building, with the exception of the gymnasium. Although there are no statistical breakdowns showing the relative exposures in shops and in gymnasiums, there is reason to believe that on the basis of pupil-hours, the accident rate in shops may equal the accident rate in gymnasiums.

Problem

2. The principal hazards in welding shops, not necessarily listed in order of frequency, are: fire, burns, electric shock, metal vapor poisoning, contusion and bruises, and explosions of compressed and/or flammable gases.

Protection of the Welder

3. The temperature of an electric arc is approximately 6000° C. The temperature of an oxy-acetylene flame is 3500° C. The temperature of an oxy-hydrogen flame is 2800° C. Hot metal splashes for varying distances in all welding and cutting processes except those using inert gas and atomic hydrogen.

4. The welder's clothing must not be highly flammable, should have no pockets or folds in which hot metal could accumulate, must completely cover all skin areas.

5. A long leather apron with a high bib is desirable for outer clothing.

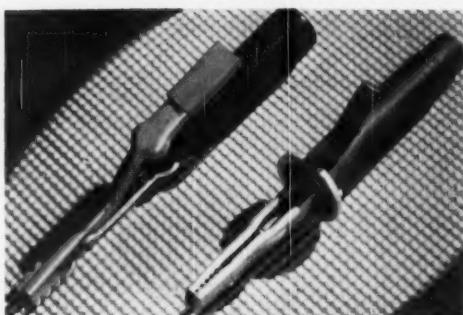
6. Shirts should have no pockets.

7. Trousers should have no cuffs.
8. Gloves with long gauntlets will prevent metal from burning the welder's wrists.
9. Shoes should have tops high enough to extend up inside the trouser leg.
10. Woolen clothing is preferable to cotton, since it both offers more insulation from the heat of the welding or cutting process and is more flame resistant than cotton.
11. Goggles should be worn at all times whether or not the welder is wearing his face mask. Goggles not only protect the eyes from chips, sparks and molten metal, but also offer some protection from the flash of a near-by welding or cutting operation.
12. Ignite the gas torch with the sparking lighter or other safe device to avoid serious burns on fingers or hands. Never use a match.
13. The electric arc is an excellent source of ultra-violet (as well as infra-red or heat) rays. Continued exposure has a harmful effect on the eyes and skin. Ultra-violet rays do not usually produce permanent damage to the eyes, but the temporary effects could be very painful.
14. Goggles, helmets and shields for eye protection on welding operations should be designed to conform to the American Standard Safety Code for the Protection of Head, Eyes and Respiratory Organs, Z2-1938, Handbook H-24, National Bureau of Standards.
15. You cannot tell, merely by looking through a glass, whether or not it affords

enough protection against the harmful rays of an arc. Specific shades have been set up as standards and these standards should be followed rigorously.

16. In practice, the ultra-violet shield is protected from metal sputter and fracture with less expensive clear glass. Safe practice requires that this clear glass be flat to $\frac{1}{2}$ prism diopter. Window glass will not ordinarily meet this specification.

17. Most electric arc welding machines operate within the range of 30 to 80 volts, which is popularly thought to be too low to be hazardous. *This is erroneous!* Open circuit voltage can go to 250 V. In any case, current flow is the factor which causes injury in electric shock. Experimental and field data indicates than an *alternating current of one-tenth an ampere* at commercial frequency can be fatal if it passes through the vital organs. *A current flow of two-hundredths ampere* is the limit at which



Examples of fully insulated electrode holders.

a person can still let go of an object held in his hand. *Such currents can easily be obtained on contact with low voltage sources.*

18. Dry skin has a resistance of from 100,000 to 600,000 ohms. Wet skin has a resistance of only 1,000 ohms. This latter can be less than the resistance of the arc, particularly at the instant the arc is broken.

19. The welder must be insulated. Dry leather gloves and a non-conductive flooring should be standard.

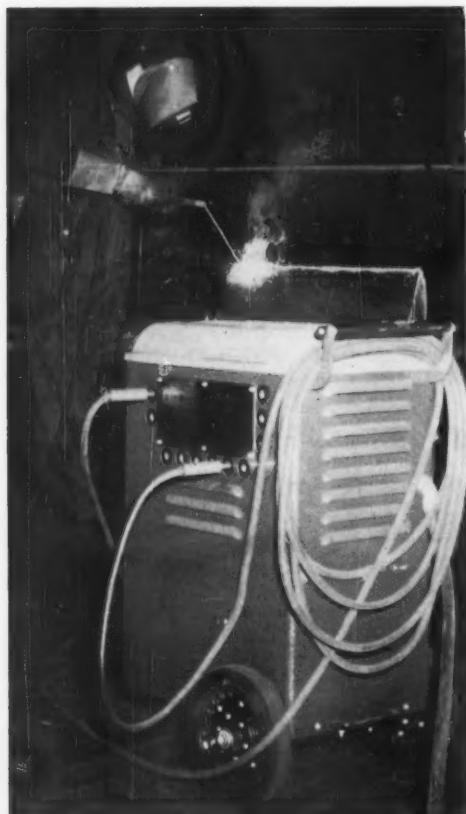
20. Electrode holders which are completely insulated should be used.

21. Shops using portable transformers which change the commercially available electric current so that it will be suitable for welding purposes must provide for adequate grounding of the transformer. If a separate grounding line is used, the connections should be checked by the instructor before current is supplied to the transformer. A more convenient method is to use a three-line cable with a polarized plug connecting to a permanent ground. Where AC-DC converters are used, similar grounding precautions must be made.

22. Permanent grounding of the work table does not provide sufficient protection to the welder if (a) his skin is damp, (b) the floor is damp, or (c) the open circuit voltage is high.

23. Lead-coated (painted) or zinc-coated (galvanized) surfaces offer fume hazards to welder using either electric arc or gas processes. Other noxious fumes, depending upon the base metal being welded and the welding rods used, can include the oxides of nitrogen and carbon, copper, manganese, selenium, silica, arsenic, titanium and fluorine.

24. The welding code (Electric and Gas Welding and Cutting Operation, Z-49, 1, Amer-



A 3-conductor cable runs from the machine to the power supply. One cable is a permanent ground.

ican Standard Association.) gives definite standards for ventilation.

25. In general, when clean carbon steel is welded in large or well-ventilated areas with bare or coated carbon steel electrodes, no health hazard exists.

26. Welding screens should project no lower than about two feet above the floor. This is to aid ventilation.

27. When welding is done in permanent booths, local exhaust hoods or air-line respirators approved by the United States Bureau of Mines are used.

Fire

28. Fire prevention in the welding shop is largely a matter of good housekeeping. In flame cutting from a height of 7 feet with the correct pressure of 35 pounds, sparks will fly and bounce throughout an area with a 16 foot radius. Increased pressure of increased height can increase the radius to 34 feet.

29. No flammable material, wood, gas, liquid or fabric should be allowed in this district.

30. Where welding or cutting must be done in an area from which flammable materials cannot be removed, asbestos or metal sheets or flame-proofed canvass should be used to cover the materials.

31. A watch for smouldering fires should be maintained in the area for at least one-half hour after the welding or cutting has been finished.

32. Where drums, tank or other containers of flammable fluids are to be repaired, special precautions must be taken to prevent a fire or explosion.

33. If the drum, tank or container held water-soluble liquids, (alcohol, for instance) it should be over-flowed with hot water until no trace of the flammable liquid is present in the spill water.

If the container held a water non-soluble substance, (oil, grease or gasoline, for example) the tank should be steamed until it is clean and free of scale.

34. An inert gas, such as, nitrogen or carbon dioxide, should be used to fill the container.

35. Where this last is impossible, it is permissible to fill the container to within a few inches of the repair zone with water. If this is done, it is imperative that adequate venting be provided, since the welding operation could vaporize enough water to cause an overflow or violent eruption.

36. Never use grease or oil on the fittings, gauge or hose fittings of the oxygen supply. These hydrocarbons are flammable and in the presence of oxygen are highly flammable.

37. Never use as an oxygen hose, a hose which has previously been used for compressed air. The air compressor will contaminate the hose interior with lubricating oil. Use oxygen, not air, to blow a new hose.

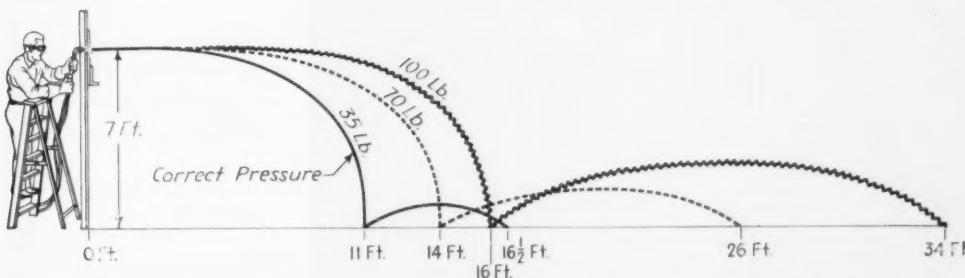
38. In permanent oxygen supply pipelines, assemble the lines and fittings without the use of paint or pipe dope. While oxygen will not burn, it does support the combustion of flammable materials and in sufficient concentrations, lowers their flash points and changes fires to explosions.

39. Do not crack the valve of hydrogen supply tanks before attaching the regulator. Hydrogen burns with explosive violence.

40. It is a good practice to provide each welder with a carbon dioxide fire extinguisher. *Caution:* The soda-acid type extinguisher has no place in the welding shop. The fluid is an electrolyte and its use could result in a severe shock to the user.

41. Acetylene generators present a series of fire and explosion hazards. Unless special reasons exist for their use, they have no place in the school welding shop.

turn page



The hazardous area depends upon both gas pressure and height of welding or cutting operation.



Storage house for compressed gas cylinders. Note metal doors. Cylinders are chained in place.

42. When shutting down the welding or cutting operation, always close the acetylene valve at the torch before closing the regulator valve. If the regulator valve were closed first, the sweep of oxygen would partially evacuate the acetylene line. This would result in drawing some oxygen into the line, which, when the operation was resumed, could cause a flash back.

43. Dual line hoses in which the oxygen and acetylene or hydrogen share a common wall are not recommended. Intermixing of the gases is possible with a resultant explosion. Where the oxygen and acetylene or hydrogen hoses are taped together for ease in handling, the tape should not cover more than four inches of each eight inches of hose length.

44. Non-sparking wrenches only should be used to remove or tighten container and hose fittings.

45. Leaky tanks should be removed from the building immediately. The tanks should be vented cautiously and the tank owner should be notified.

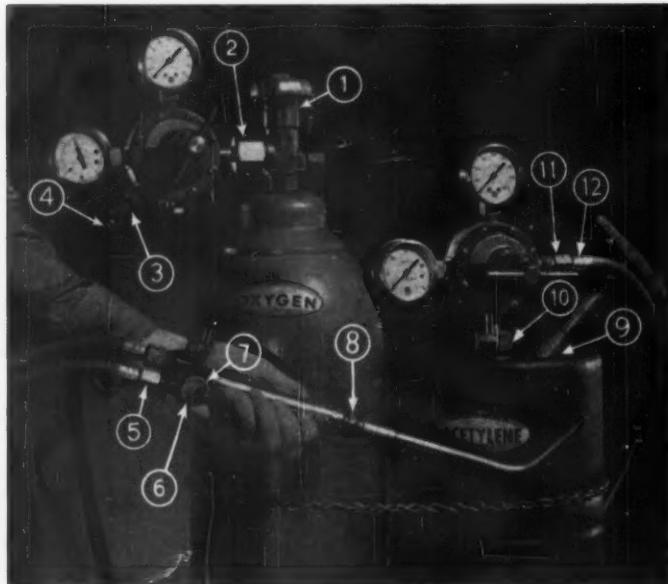
Equipment Hazards

46. Specially constructed dollies which can be built in the school shop provide firm anchorage for oxygen, acetylene or hydrogen cylinders.

47. Lacking such special equipment, the cylinders must be chained against the wall in an upright position.

48. Cylinders can be rolled on the bottom edge but never dragged. Do not drop cylinders nor permit them to strike each other violently. Do not use cylinders, whether full or empty for rollers, supports or any purpose other than to contain gas. Do not tamper with safety devices in valves or cylinders. Always consider cylinders as full and handle with corresponding care.

49. Regulator valves which bleed, i.e., allow more than the gauged pressure to build up in



There are 12 connections on
gas welding system where
leaks occur. Test these with
soap suds.

the hose line, should be sent promptly to their manufacturer. Regulator valve repair is highly specialized.

50. Fittings between the tank and regulator valve and between the regular valve and the hose should be tested with soap-suds to make certain that they are gas tight.

51. Shut-downs should be made by closing the tank valve.

52. To insure that no dirt interferes with the operation of the regulator apparatus, the tank valves of oxygen, acetylene and inert gases should be cracked and then closed before attaching the regulator. *Do not crack the valves on tanks of hydrogen.*

53. Do not use the regulator apparatus as a hook on which to hang the torch.

54. Neat housekeeping requires that hoses be coiled.

55. Use the green hose for oxygen only. Use the red hose for combustible gases.

56. Masks and goggles worn by welders severely reduce vision under normal light and thereby impose extra housekeeping precautions.

57. Welding rod butts should never be dropped on the floor. A bucket partially filled with sand is the proper container.

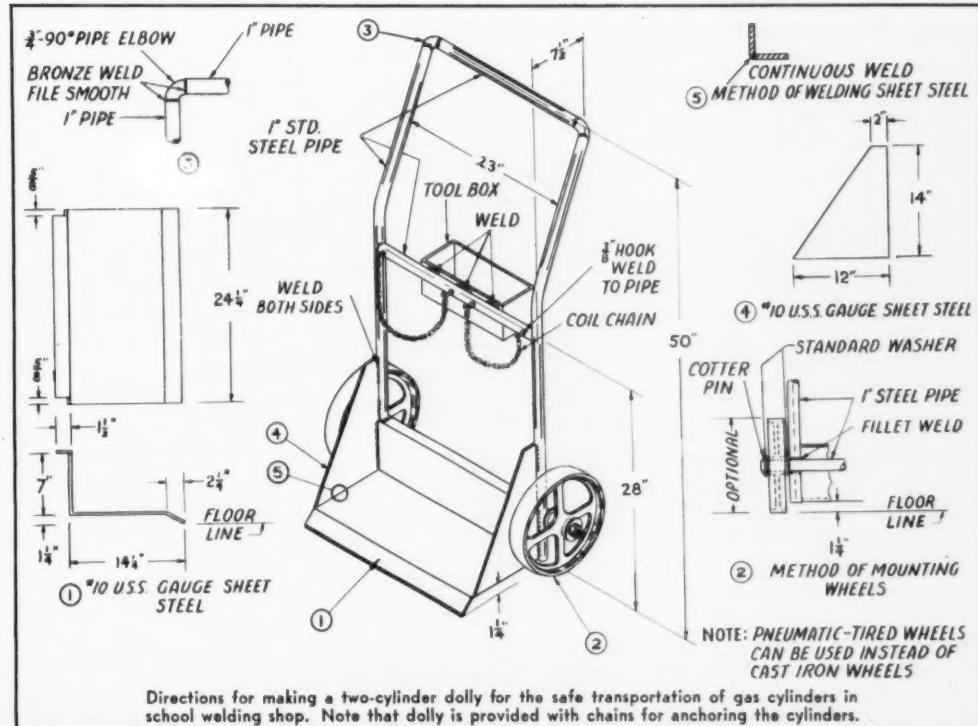


To test the oxygen hose for leaks: With working pressure inside, hold it under water. Watch for bubbles. Use soapsuds to test ends near torch.

58. Cut-off sections of angle or strap iron should be returned to inventory or put in a metal-walled scrap bin. They should never be allowed to accumulate on the floor.

59. Small piece work should be securely fastened to the welding table with C-clamps or other devices so that it cannot be accidentally knocked off with possible injury to the welder.

60. The super-heated steel and hot slag, which result from the thermit process of welding, present some particularly acute fire hazards. Because of the possibility of overflow or of



Directions for making a two-cylinder dolly for the safe transportation of gas cylinders in school welding shop. Note that dolly is provided with chains for anchoring the cylinders.

mould breakage, thermit welds made indoors should be done only over a sand, clay, asbestos or other non-fusing, high melting point substance which has a large enough area to contain all the hot metal which might be spilled.

Inert-Gas Metal Arc Welding

61. The ultraviolet rays given off from the arc are intense. The welder should wear close-knit cotton or wool clothing which covers all exposed areas of the skin, including arms, shoulders and neck. He should wear heavy leather or asbestos gauntlets.

62. A helmet is recommended as protection for eyes and face, because it will protect against radiant heat. Goggles should be worn under the helmet so the welder will become used to them and will have protection when he removes the helmet to do cleaning or chipping.

63. For inert-gas welding, special shades of helmet lenses must be selected, depending upon the amperage being used. The lens should be slightly darker than that used in ordinary arc welding, because the inert-gas arc is brighter and more intense.

Selected Information Sources

64. *Accident Prevention Manual for Industrial Operations.* National Safety Council, Chicago.

65. *Accident Prevention Manual on Gas and Electric Welding and Cutting.* American Petroleum Institute, 250 Park Ave., New York, N. Y.

66. *Safety in Electric and Gas Welding and Cutting Operations.* American Standard Z49.1. American Welding Society, 33 West 39th St., New York, N. Y.

67. *Standard Qualifications for Welding Procedure and the Welding Operator.* American Society of Mechanical Engineers, 29 West 39th St., New York, N. Y.

68. *Gas Systems for Welding and Cutting.* National Board of Fire Underwriters, 85 John St., New York, N. Y.

69. *Protection of Head, Eyes and Respiratory Organs.* American Standard Safety Code (NBS Handbook H-24) National Bureau of Standards, Washington, D. C.

70. *Manual of Welding and Allied Processes.* United States Navy, Bureau of Ships, Washington, D. C.

Safety Education Data Sheets available are:

#429.04-	
-19 Alcohol and Traffic Accidents	
-78 Amateur Electricians, Safety for	
-26 Animals, Domestic	
-37 Animals in the Classroom	
-57 Auto Shop (Rev.), Safety in the	
-66 Baby Sitting	
-49 Bathroom Hazards	
-1 Bicycles	
-18 Camping	
-14 Chemicals	
-59 Chemistry Laboratory, Safety in the High School	
-86 Cigarette Fire Hazards	
-80 Counselors and Helpers in Summer Camps	
-6 Cutting Implements	
-68 "Do It Yourself," Safety in Electric Equipment	
-87 Electrical Shop, Safety in the	
-34 Electrical Storms, Safe Conduct in	
-5 Falls	
-60 Farm Mechanics Shop (Rev.), Safety in the	
-3 Firearms	
-25 Fireworks and Blasting Caps (Rev.)	
-44 Fishing, Hook and Line	
-12 Flammable Liquids in the Home	
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-20 Gas, Cooking and Illuminating	
-50 General Metals Shop, Safety in the	
-64 Graphic Arts Shop, Safety in the	
-81 Gun Clubs: Their Organization and Activities	
-22 Gymnasium (Rev.), Safety in the	
-52 Highway Driving, Rules, Precautions	

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-43 Hiking and Climbing	
-91 Home Lighting	
-41 Home Workshops (Rev.)	
-42 Horseback Riding	
-62 Iceboxes and Refrigerators, Hazards of Discarded	
-79 Industrial and Vocational Education Programs, Coordinating Safety in	
-70 Kites and Model Airplanes, Safety with	
-23 Laboratory Glassware	
-7 Lifting, Carrying and Lowering	
-53 Machine Shop (Rev.), Safety in the	
-2 Matches	
-36 Motor-Driven Cycles	
-55 Motor-Vehicle Speed	
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-65 Part-Time Jobs: Food Handling, Safety in	
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-8 Poisonous Plants (Rev.)	
-35 Poisonous Reptiles	
-21 Poisons, Solid and Liquid	
-24 Public Assembly, Places of	
-51 Pupil Excursions, Safety in	
-38 Railroad Trespassing	
-11 School Buses—Administrative Problems (Rev.)	

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-63 School Bus Safety: Educating Pupil Passengers	
-73 School Bus Safety: Operating Practices	
-67 School Dramatic Productions	
-47 School Fires (Rev.)	
-85 School Lunch Room, Safety in the	
-40 School Parties	
-83 Sheet Metal Shop, Safety in the	
-17 Sidewalk Vehicles	
-84 Skiing Safety	
-28 Small Craft	
-71 Sports: Baseball, Safety in	
-77 Sports: Basketball, Safety in	
-72 Sports: Football, Safety in	
-75 Sports: General Practices, Safety in	
-54 Summer Jobs: laborers, home yard, service-station	
-45 Summer Jobs—Farm	
-27 Swimming	
-15 Tools, Hand	
-4 Toys and Play Equipment	
-89 Track and Field Events	
-33 Traffic Control Devices	
-48 Unauthorized Play Spaces	
-88 Vision and the Driver	
-76 (Bad) Weather Conditions, Safety in	
-39 (Bad) Weather: Hazards, Precautions, Results	
-90 Wearing Apparel, Flammability of	
-56 Welding and Cutting Safely (Rev.)	
-30 Winter Driving	
-32 Winter Sports	
-58 Winter Walking (Rev.)	
-46 Wood Shop, Safety in the	

Data sheets from SAFETY EDUCATION are available from the National Safety Council. 10 to 99 copies, \$.06 each. Lower prices for larger quantities. Order by stock #429.04-and the title and number of the data sheets. Complete set of data sheets—\$4.20. All prices are subject to a 10 per cent discount to N.S.C. members and schools, colleges, universities and public libraries.

BULLETIN BOARD

Ends school car pools

Student cars must first pass a safety check at two Modesto, Calif., high schools before students can apply for a permit to drive to school. Only after conferring with the dean of men—parents are sometimes included in these conferences—is a student granted a permit. Teens may drive only brothers and sisters to school and need parents' permission to drive home for lunch. This program, started by the board of education and police department, has cut traffic accidents in half during school hours.

Driver ed weakness

Winter driving, night driving and driving on high speed roads should be required in driver education courses, according to A. R. Lauer, director of the driving research laboratory, Iowa State College. He cites NSC statistics which show three times more fatal accidents at night. He feels the major weakness of driver ed courses is this lack of training for daily difficult conditions.

Integrated in Georgia

From Georgia Southwestern College come these teachers' reports of where and how safety is integrated into general classes: English—indirect references; speech—student speeches on highway safety; contemporary state history—mortality rate and state financial problems; sociology or government—direct reference; family health—direct, plus "safe and sure driving I urge each Friday"; biology and physical sciences—accident statistics discussed.

Allstate awards

Individual student awards for outstanding contributions in safety will honor five collegians this year in a pilot program at State University College of Education at Albany. The prizes—one \$100, two \$50 and two \$25—are a grant from Allstate Insurance Co. If successful, Allstate plans to expand the award program to more than 40 colleges in the University system—totaling several thousand dollars, annually.

First aid by-products

Wisconsin school bus drivers are being urged to know how to handle broken bones. Since the driver is usually the only adult around if an accident occurs on a school bus (most children are hurt getting on or off), a first aid program is being sponsored by the Red Cross, the State Motor Vehicle Department, State Bus Operators Association and the State Department of Public Instruction. As a by-product, drivers will probably be less likely to get into accident-producing situations.

Infant parachutes

A parachute for children—actually a safety harness to reduce injuries to infants in the event of a crash, has been designed by Edward R. Dye, former safety design researcher at Cornell Aeronautical Laboratory. Similar to parachute harnesses the strong, lightweight nylon webbing supports a child across the shoulders and pelvis, yet still permits him much freedom in lying down or standing. And, the harness permits drivers to give full attention to the road without worrying about child passengers.

IOWA REPORTS . . .

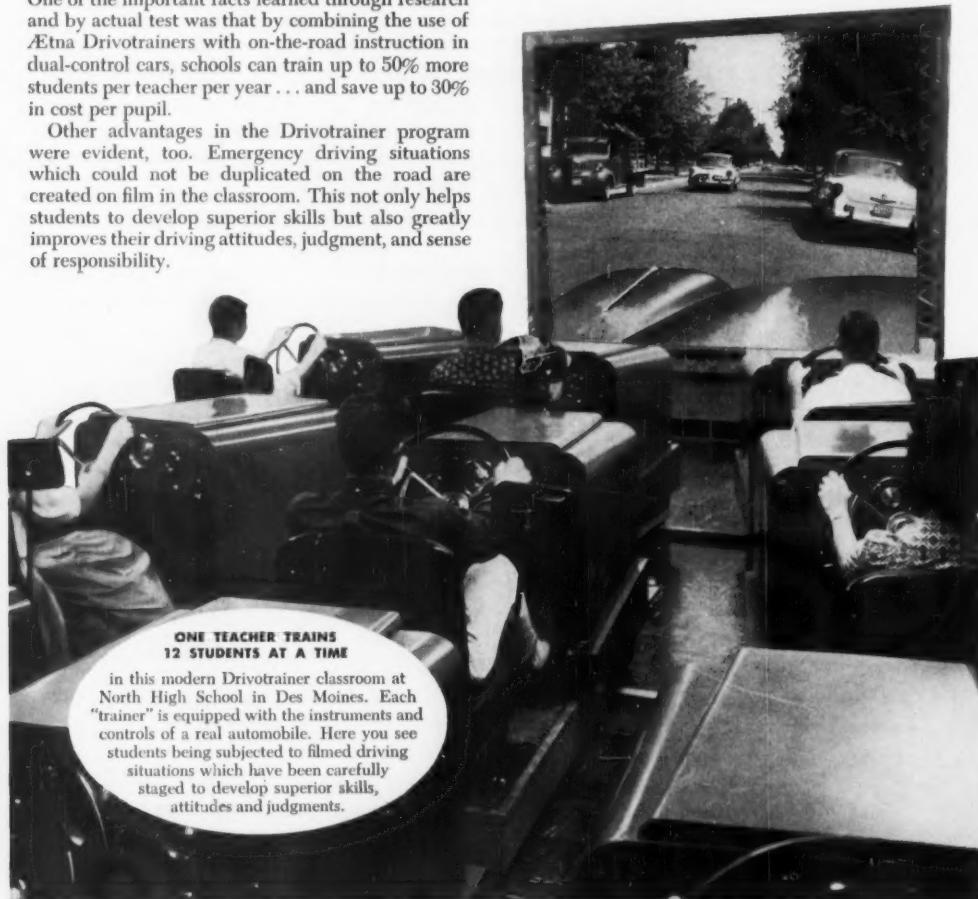
Five years of experience with AETNA

In December of 1954 the first Aetna Drivetrainers were introduced in Iowa. The installation consisted of 5 units at the Iowa State Teachers College. Initially, these were used for basic research. Today they are devoted to the training of future driver education instructors.

Right from the start Iowa teachers and state safety officials recognized the effectiveness and economy of the then new teaching methods . . . and made plans for future installations in the state's school system. One of the important facts learned through research and by actual test was that by combining the use of Aetna Drivetrainers with on-the-road instruction in dual-control cars, schools can train up to 50% more students per teacher per year . . . and save up to 30% in cost per pupil.

Other advantages in the Drivetrainer program were evident, too. Emergency driving situations which could not be duplicated on the road are created on film in the classroom. This not only helps students to develop superior skills but also greatly improves their driving attitudes, judgment, and sense of responsibility.

Today there are seven Drivetrainer installations in key Iowa schools . . . and this is just the beginning. As pointed out in their own words on the facing page, state officials and teachers agree that the Aetna Drivetrainer is one of the most effective and economical training aids in their driver education program. Their goal: More installations to assist more schools in giving more Iowa teenagers the training they need to become better, safer drivers.



DRIVOTRAINERS

Development of the Drivotrainer was financed by the Aetna Casualty and Surety Company as a contribution to education, and highway safety. Aetna Casualty has no financial interest in the sale of Drivotrainer equipment but continues its public service support of the program through production of Drivotrainer films and other teaching aids, assisting in teacher training, and supplying an educational liaison service to Drivotrainer users.

Drivotrainer equipment is manufactured, sold and serviced by the Automatic Voting Machine Division of the Rockwell Manufacturing Company, Jamestown, New York.

For further data on the Aetna Drivotrainer, please write to:



INFORMATION AND EDUCATION DEPT.

**AETNA CASUALTY
AND SURETY COMPANY**

Affiliated with Aetna Life Insurance Company

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FRANK B. ULISH
Director, Safety Education Division
Iowa Department of Public Safety

"The Drivotrainer has opened an entirely new and effective method of promoting public safety. It enables schools to reach more of their students — some as high as 100% and also to train out-of-school youth, parochial students and adults."



G. R. "DOC" SPEERS
Field Safety Supervisor
Iowa Department of Public Safety

"Our goal in Iowa is more Aetna Drivotrainers to assist us in our high school driver education program. The Drivotrainer will enable us to reach more Iowa boys and girls and, at the same time, do a better job of educating them in public safety."



HARRY J. KRIEG
Chief of Police
Waterloo, Iowa

"The Aetna Drivotrainer is one of the most important assets provided by our schools for the youthful drivers in our community."



WILLIAM BURNETT
Driver Education Teacher
Mason City, Iowa

"Mason City installed Aetna Drivotrainers for the following purposes:

1. To enable every high school student to receive driver education with no increase in staff size.
2. To standardize instruction both in skill and attitude.
3. To better utilize the instructor's time.

After three years of use we consider that the Aetna Drivotrainer is by far the best mechanical teaching method yet developed to lower per pupil cost, and raise attitude standards."



ALFRED C. BARNES
Director of Safety Education
Dept. of Education and Psychology
Iowa State Teachers College
Cedar Falls, Iowa

"Aetna Drivotrainers have proven to be invaluable in training future driver education teachers."

During the NSC Congress sessions, I saw the beginning of the

Safety

SAFETY is not dull and academic. It's alive. It's exciting. It provides life."

Nearly shouting with enthusiasm, Howard Pyle, NSC President, ended his kick off speech and set the School and College sessions into orbit. Delegates rose for a rousing ovation for President Pyle—and for themselves. Applauding their own enthusiasm, the school people felt a pulsating spirit—and this spirit permeated all the school and college sessions at the 47th National Safety Council Congress in Chicago, Oct. 19 through 22.

Challenged by the Congress theme—Safety in the Sixties—the 500 educators and administrators gave the subject of safety new life. Through their speeches and discussions, they proclaimed the coming decade the renaissance of safety education.



"Present goals out-dated" Milo Kearney

Forecasting the future—an ever changing climate of scientific, technological, social, political and cultural developments—brings into focus new needs in education—and increased demands for safety teachings. "Facing an accelerated rate of growth and expansion, we must re-evaluate our goals in education in terms of this rapidly changing world. Last year's goals, possibly not yet reached, may be out of date," said Milo Kearney, director, Teacher Education and Certification, Texas Education Agency. Kearney continued, "We must be alert in our goals. This calls for an alert leadership never so called before."

Provocative ideas for this safety renaissance were offered by D. Willard Zahn, who delivered the Gordon Graham Memorial Lecture. This annual lecture is a tribute to one of the great pioneers in safety education, and is given by an outstanding contributor in the field.

In his address, Zahn, dean, Teachers College, Temple University, Philadelphia, said: "Safety education, in the immaturity of its development—for as specific content in the curriculum it has hardly reached educational adolescence—has placed too great reliance on 'consciousness' as a goal. The assumption appears to be that, like



In smoke-filled room, school and college conference members thoughtfully discuss new needs in education during the 60's.



Lowell Fisher honoring John Hill, retiring higher ed section chairman. Virginia Wheeler, supr. section chairman, holds the award she received.



Renaissance

By Nancy Margolis

advertising, any mention of the product is likely to produce consciousness of need. So it has been: 'Safety, safety, safety,' and again, I say, 'Safety?' Up to a point, that's fine! But the superior safety program of the sixties will more surely go beyond consciousness to *conscience* by way of insight.

"The safety education that characterizes the operation of an excellent safety patrol or a strong program in driver education is of such great value because 'consciousness' is achieved through constructive participation. During the process 'insight' is developed and the learner moves inevitably toward the acceptance of a 'conscience' which is related to the activity involved," said Zahn.

"It must be recognized that mere consciousness is not enough: some inner drive that shows in conscience for safety is essential. Thus, programs of the future will go beyond the 'bombardment' of pupils by safety shell-fire. 'Let's pretend' too often has only limited lasting value: it is often mere entertainment, valuable though it may sometimes be. While they aim to develop a feeling for safety—and often do—they tend to stop at a point far removed from any possibility of developing conscience.

"Safety education needs more *depth* experiences. Attitude building, selective participation, content quality in terms of attitude development potential, individual responsibility as regards others as well as self—these are the really important considerations. These have some chance of producing long-term behavior that is individually helpful, socially controlled, and yet without that excess of fear and caution that puts such severe and undesirable brakes on vigorous and creative activity. The school's part in the process of attitude development must go far beyond mere 'patterns' for doing this or that to the scientific development of constructive attitudes."

What could be more alive and vital than helping to develop a conscience for students? The ideal was inspiring—the reality, sobering.

turn page



"Beyond consciousness to conscience" D. Willard Zahn



Daniel Webster and May Hazard, program chairman, give serious thought to words of S&C Director Wayne Hughes.



James Aaron, 1960 congress program chairman, tells plans. Right: Fisher awards Russ Brown, driver ed chairman for work.





Telling how to improve driver education were panelists A. E. Florio, James Nihan, Peter DePaolo and Edward Bonessi.



Rear-door evacuation completed in 40 sec. demonstrates school bus safety helper program, training students for emergencies. A girl on crutches is helped from the bus.



Homer Allen, Purdue University, tells how to work and play at the National Safety Congress.

Congress delegates included (L to R): Olive Berg, Nat'l Council of State Consultants in Elem. Educ.; Dr. Raymond Moore, General Conf. of Seventh-Day Adventists; Elsbeth Vaughn, Assoc. for Childhood Education, Internat'l; Bernard Loft, Amer. School Health Assoc.; Dorothy Stults, Council for Exceptional Children, NEA; John Murray, U. S. Office of Education; Muriel Beuschlein, Council for Elem. Science, Internat'l; Lois Clark, Dept. of Rural Educ., NEA; Oneida Cockrell, Nat'l Assoc. for Nursery Education; Rev. O'Neil D'Amour, Nat'l Catholic Educational Assoc.

Should educators do this—if so, how? Some excellent ideas and suggestions came from Raymond S. Moore, chairman, Department of Education and Psychology, Potomac University, Washington, D. C. He first warned:

"There is a tendency among us to take the obvious way, the expedient line, the mechanical route; to rely on technology for our salvation. I submit to you that a real safety program is more than (1) scaring children into being safe or (2) providing mechanical contrivances and routine procedures, however necessary and good they may be.

"My thesis then is this: All the safety literature in the world—lithographers masterpieces, safety-educator's dreams—and all the precautions and devices are of limited value for safety without a disciplined mind, an unselfish heart; with *built-in safety features*.

"I believe there are three over-all phases in this safety business: planning and engineering, legislation, and preparation. This last I divide into training and education. There is a difference, you know. Children are not like animals—just able to be trained. They have the capacity to reason, to think, to be educated. Education is higher than training. It is absolutely essential that we teach our children not only *what* but also *how* to think. Not just ordinary, everyday repetitious thinking, but thinking down to principle, thinking down to the basic reason why.

"Who will do it? Now comes the question, who is going to carry out this kind of teaching? We might as well face frankly our responsibility as educators. The elementary teacher is the most important 'safety engineer' today. Parents by and large have passed the buck. This is a sad fact, but we have no time for tears. Let's face the fact that we have certain advantages, too. For we can move on the psychology of the group.



"In teaching his children how to think . . . one of the most important items in the safety educator's toolbox is physical work. A combination of urbanization, laissez-faire suburbanization, automation, and consolidation has brought many together in large groups. Such large groups are never as easily disciplined as the smaller, personalized groups in the rural past. It has created much idleness for our children. And idleness means trouble. For the most part, we have lost sight of the nobility of physical work, an experience which at home or school, in business or industry, teaches character lessons that cannot be learned in books—dependability, promptness, thoroughness, order—these and many others. Some of us are now working seriously on this problem with much encouragement from leading educators. We must take care not to fever minds of our young people with an over-abundance of intellectual fare. We must keep their programs balanced, Professors Conant and Rickover to-the-contrary notwithstanding."

Moore explained his work program—an exciting new idea—of dealing through parents and then applying lessons in group discussion with the children. The parents assign work for their children—this might be raking the lawn. Each Monday the children bring reports from their parents, and then discuss their work, its problems and whatever else is on their mind in a group discussion.

Moore challenged educators, "Your sidewalks may be smooth, your steps broad, your extinguishers filled, your hall corners rounded, and your supervision perfectly organized in playground and shop, but if you have an irresponsible student, however brilliant, however dull, you have a safety risk. Give me the child who has been taught how to think, whose concern is not only for himself, but for others, one who has learned the nobility of work through plan-

ning and practice, and I will give you the greatest safety insurance there is for the '60's—the child with *built-in safety features*."

Another staunch advocate of the group discussion technique is D. Kenneth Steers, chairman, Department of Physical Education for Men, University of Delaware, Newark. He was referring to teacher education courses when he said: "Group discussion can be extremely effective in teaching safety. It is probably one of the most difficult ways to teach, for there can be no rigidly planned outline and sequence of materials and events. The necessity to 'play it by ear' makes each class session truly a surprise hour."

He believes that group discussions are one way for individuals to develop desirable attitudes toward safety that will reflect in their behavior.

The abstracts "attitudes" and "behavior" have been sky rocketing through educational spheres since Sputnik. Sceptics have cried, "Changing attitudes is like moving Mt. Olympus." Burton Marsh had a few words for such doubting Thomases and he even went on to show delegates how driver education could do this Mt. Olympus job. The director of the traffic engineering and safety department of the American Automobile Association said:

"When we talk of improved driver behavior, there are those who take a rather pessimistic view. They say human nature is mighty hard to change. It changes only slowly. This is true. On the other hand, humans have repeatedly shown that they are very adjustable or adaptable to needed changes in behavior to meet many environmental conditions.

turn page

"Group discussion effective"



D. Kenneth Steers



Ruth Jewell urges more support for elementary school safety.



Discussing Russian driver education are F. R. Noffsinger, NU Traffic Institute, Leslie Silverman, MSU Highway Traffic Safety Center and Ruth Dunbar, Chicago Sun-Times.



"Expressway driving is Big League" Edward Klamm



Rotation team: Samuel Maurice, Harold Jack, Mary May Wyman, Bernard Loft, Dewey Barich take some time out.

"All around us we see on the one hand, tremendous, exciting scientific and material advances. On the other hand, if we look for them, we see rather frightening social deficiencies. It's much harder to deal with these human factors because of the vast complexity of human beings and their many problems of interrelationship. Yet, juvenile delinquency, youth gangs, youth disturbers in schools, unwillingness to accept personal responsibilities, attitudes that it's up to someone else to take care of me, disrespect for law and order and for parents, corruption in labor union management, fixed quiz shows, fixed traffic tickets, shoddy workmanship, unwillingness to turn to a solid day's work each day—these are examples of situations which greatly need attention.

"You may say: Does this have any relationship to driver education? I believe that if you think it through you will realize that it does have challenging relationships.

"My view is that a proper driver education course can be a very valuable factor in character building. It can help build a sense of personal responsibility; of respect for law and order; better sense of values; self-reliance and self-discipline, for example—and I do not believe this is 'reaching out into left field.' The motivation of students in driver education courses is usually very strong for one thing."

A big catalyst for the accident prevention movement was driver education. But recently this "glamour boy" of safety education has needed a face lifting to meet the challenges of modern day driving: bigger and better freeways and bigger and worse traffic jams. Edward R. Klamm, accident prevention director, Allstate Insurance Co., Skokie, Ill., pinpointed these new styling needs when he said:

"Expressway driving is 'Big League.' It re-

quires special skills and involves special hazards. We are living in an age of specialization; driving, too, has become the domain of the specialists. There is no room for amateurs on our expressways.

" . . . the real challenge for the driving instructor is the development in the student of the proper judgment and attitudes that will make him a good driver. It is this mature judgment and proper attitude that makes the difference between a good and bad expressway driver.

"The beginning driver should never be exposed to actual expressway driving. . . . Instructors should stress the importance of the automobile's condition when driving on expressways, the grave hazards of a stopped car on the expressway, the necessity of getting their own car entirely off the driving portion of the road if they're forced to stop, the ways speed changes the conventional driving patterns and practices and the need for using directional signals. One of the greatest dangers is that it all seems so easy."

Dealing directly with the crisis facing the accident prevention movement, Helen Manley discussed how to fight curtailment in safety education. The director of the health, physical education and safety department, University City (Mo.) Public Schools told delegates:

"Any area of the curriculum which does not obviously belong to the hierarchy of the so-called "academic" is having a struggle to achieve and maintain a place in the crowded "Day's order" in our secondary schools. Safety education had a struggle to get in and in many school systems was only half in,—a step child, so to speak; i.e., it may not have had graduation credit, may be elective or a stipend may be attached to part of the course.



Fifth graders gave educators much insight into student views on school safety activities while participating in a panel discussion with their adult leaders.



"Priority targets essential"
Norman Borgerson

"Each school system varies in that problem of getting safety in, and perhaps we, as safety educators, have compromised too much in this start. Many of us have a physical education background and know that it has suffered for years because at the beginning physical education got into the curriculum through the back door, i.e., by saying it needed no time, space, nor money. Safety education is vital for survival in today's world so it should be a required semester course. Every child will be a pedestrian, a citizen, and a car driver and therefore, needs the essentials of safe attitudes. Attitudes cannot be taught per se—they are learned in connection with doing."

That safety education should be a required course was a need frequently voiced during the Congress. A particularly strong advocate is the Illinois state superintendent of public instruction. George T. Wilkins included in his talk:

"A primary function of the office of superintendent of public instruction is to provide leadership which can assist in: (1) making safety an integral part of the educational program, (2) assisting institutions of higher learning in curriculum expansion with the possibility of requiring all teachers in training to have a general safety course as part of their training and (3) certification by the office of the superintendent of public instruction of only those teachers who have satisfactorily completed a basic course in safety education, thereby helping to insure better instruction in the public elementary and secondary schools."

One of the most stimulating sessions was a demonstration of how adults can look with children at safety problems. On a panel with eight fifth and sixth grade students were Lincoln school principal, Stanley McKee, Highland Park, Ill.; Mrs. Richard Schneider, PTA safety

chairman; Officer "Bud" Moon, school policeman, and Harry Kubalek, Lincoln teacher. After the students and adults discussed their safety program at Lincoln school, including boy and girl patrols, fire drills and safety assemblies, Alfred Moseley, research associate, Department of Legal Medicine, Harvard Medical School, analyzed what he noted from this demonstration.

He said, "In general, the children showed that they all clearly understood *what* to do (in fire drills, school safety patrol, etc.), but not *why* they should do these things. They don't have a grasp of the principles of the functions."

Referring to part of the children's discussion about fire drills, Moseley "The students have a clear cut understanding that their fire escapes are something they only use in emergencies. They said they are not to play on them, run up and down them or use them at all, except for fire drills. Actually if the children were permitted to sit on them and play around them, the escapes would become something friendly, associated with fond thoughts. They would have warmth and friendliness—and the children would be familiar with them and better able to handle them in emergencies."

One child mentioned that a frequent problem during fire drills is teachers' getting their heels caught on the escapes. To this, the psychologist replied: "I also don't feel that teachers should be encouraged to wear low-heeled shoes in class. To me, it's more important that a teacher be human in the eyes of her children, and if the current fashion is for women to wear those high, narrow heels, the teacher should, too, if she wishes. It's more important to have a heel caught as the children practice drills, than to have no drills at all."

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Who Wields

The nationwide problem—where should leadership be placed for college safety programs?—is the panel question discussed this month by higher education leaders.

John W. Hill, personnel insurance and safety director, Texas Agricultural & Mechanical College System, College Station, Tex.



THE chief administrator of a college or university is basically responsible for the safety of students, staff and visitors on the campus. He may, however, delegate or assign the responsibility for the leadership of the safety program to one person or group. The responsibility for leadership on the campus must be assigned and clearly defined. Many college administrators have found it advisable to designate a safety engineer, safety supervisor or safety co-ordinator to be responsible. The designation of the leadership and the procedures to be followed should be outlined in an administrative order or memorandum to all supervisory personnel.

Some institutions have found that the leadership of their safety program has been successful when delegated to a committee composed of administrative staff, responsible for establishing policies, procedures and standards for the safety program. Following committee action they have found it is advisable to designate one individual responsible for carrying out the policies and standards established.

With suitable leadership designated by the administration, students and staff will carry their responsibilities for a safety program to a successful completion. Most institutions have found students and student organizations anxious and willing to accept responsibility if properly directed for their own safety program.

It is impossible to suggest an ideal organizational procedure that will meet the conditions of all institutions! However, most safety specialists believe that a well-designated campus safety program will be successful if the adminis-

tration makes it clear that one individual or group is responsible to him for the leadership of the program. •

John E. Corbally, professor of secondary education, University of Washington, Seattle.



A comprehensive university, such as the University of Washington, is a combination of many trades or industries with the safety problems peculiar to each trade or industry found combined on the campus. This complicates the problem of safety, and makes it difficult to answer the question as to where leadership should be placed for college safety programs.

State law in Washington requires safety committees in industry, supervised by the Department of Labor and Industries. In compliance with this law, the University is reorganizing the committee that was appointed for the purpose of working out a program for civilian defense.

Initiating a safety program should be an administrative responsibility. At the University this is assigned to the business manager. He should have a committee of technical experts, which would be advisory only. On this committee should be an expert on radio isotopes and nuclear exposures, since the University is carrying on research using isotopes in several fields. Regular checks on radiation are necessary to safeguard student welfare. Experts in traffic, housing, fire, construction and flammables should be on the committee.

So complicated is the university campus in today's fast changing world, that safety programs are, of necessity, becoming more complex. Such programs must be the responsibility of the administration, but the carrying out of the program must be left to specialists. •

the Gavel?

Ralph K. Davies, associate professor of chemistry, Baldwin-Wallace College, Berea, Ohio.



THIS question should be answered with two groups in mind: the small college of any type of program and the large college or university with multiple programs.

Let us consider the small pre-professional and/or liberal arts college. My experience has been that this group has several problems that bear directly upon the coordination of effort in behalf of student welfare. I use the term *student welfare* because safety usually has the connotation of action taken after an emergency, i.e., fire, windstorm, explosion, etc., yet group living in all of its facets is the state director of *potential* group control emergencies. One safety man stated that fire drills should never be practiced on a moonlit, clear night! The fire drill was excellent, but then came the problem of getting everyone back to bed! I mention this to illustrate the point—several persons should be aware of the problems of student behavior.

To me, the leadership should be placed in the administration. Specifically, the person responsible for student affairs—dean of students, dean of men or dean of women—should be the chairman of such a group. I would assume that the small colleges need to operate a student welfare group from within their present staff. Further, the above-mentioned staff people do have more contact with students as a group than faculty members. In addition, these officers of the institution are charged with the application of policies in cases of misdirected or misinformed students.

Since any dean will quickly tell you that he is overworked, there should be an advisory group assigned to him (or her). This group should consist of:

- (a) Student Council representative (president or vice president)
- (b) Physical plant department head (or equivalent)
- (c) Faculty members—one each from:
 - (1) Psychology department
 - (2) Physical science department

- (d) Dean of women and/or dean of men (depending upon office of the chairman)
- (e) Head of the health center
- (f) Optional—dean of faculty, or academic dean, president●

J. Burton Vasche, associate superintendent of public instruction; chief, division of state colleges and teacher education, State Department of Education, Sacramento, Calif.



BASIC responsibility for the initiation and the development of the college safety program must rest with the administration of the college.

Leadership must be guided by an understanding of the needs and purposes of safety education. In turn, it must create and maintain an atmosphere which will encourage professional staff members to develop the strongest program possible.

Those who are called upon to direct the specifics of the college safety program will find progress possible only to the extent that the administrative officers of the college initiate, finance and otherwise support a balanced offering of courses and services in the safety field.

A common criticism on the part of college safety people is that it is difficult "to sell" the program to administrative officers of the college. College administration, including officers of the college and members of the governing board, must be aware of the nation's safety problem.

Without the acceptance of a level of statesmanship upon the part of college presidents and deans as regards safety education, it is next to impossible for teachers of safety to make progress in the classroom and laboratory.

How a college administrator or board member may attain this understanding and leadership is another important question.

Professional people in the safety field can through their repeated contacts with college officers help develop this understanding. Or, the administrator may be encouraged to study the scope of his own duties seriously and in the course of this examination accept the leadership challenges of the safety field.

Then, there is the growing tendency of industry to work closely with college administrators as programs are developed to meet the needs of the community and of those industrial and

business institutions which employ college graduates. In this way, the representatives of the professions can do much to establish in the mind of the college president, or board member, or dean, the realization that serious demands exist for constructive college programs in the safety field.

Above all, leadership to the safety field and to the content of the program itself, will come through concerted cooperation on the part of college administrators, teachers, and students, extended over a long period of time.

The college safety program will succeed only to the degree that teamwork is shared by all parties in this significant educational adventure.●

L. C. Grannis, supervisor, safety and disaster preparedness, University of California, Los Angeles, Calif.



THE institution should establish a safety program which is principally inspectorial and indoctrinal in character. This type of program most appropriately should be placed by the institution head under the leadership and direct responsibility of a safety engineer, with suitable staff, because a safety engineer is trained to be adept in general accident prevention techniques. The program would also include safety committees appointed from each department.

It is recognized that health agencies have interest in the cause and remedy of injuries. But accident prevention measures in the vast majority of cases are accomplished in the engineering field either by physical changes or indoctrinal methods. Leadership for corrective action is an engineering rather than health function.

A safety organization should not be capable of implementing its own recommendations involving service requirements. Otherwise, beside being uneconomical, encroachment on other areas of similar endeavor takes place and the assigned responsibility of safely conducting an operation becomes less definitive. Therefore, physical safeguards and safety equipment when deemed essential by the safety organization should be procured by the operating department or agency having jurisdiction. Similarly, physical examinations, tests, etc., are matters for the institution's medical facility upon requisition by

the operating department when suggested by the safety organization.

Because the general responsibility for safety as previously indicated rests with the institution's administrator, it is not considered that leadership for safety should be shared by the administration with the students. This would not preclude, however, the presence of students as participating members of departmental safety committees when so desired.●

William H. Watson, safety coordinator, Florida State University, Tallahassee, Fla.



LEADERSHIP for a college safety program starts with the president. The safety of the students, staff and faculty, visitors, and the public using or passing through the campus is his concern.

A safety coordinator should be appointed with the responsibility and authority for coordinating and directing the overall safety program. Since the business manager is the top staff administrator at most institutions with responsibilities including buildings and grounds, auxiliary services, police and fire protection, it would seem logical to place the department of safety under his leadership.

According to a recent survey of six large universities, it was found that fire safety, traffic and parking, police and watchman protection, safety promotion, and safety education are most efficiently conducted when coordinated by one person.

The safety of people, areas, buildings, equipment, operations and activities should be the responsibility of each department head. Those in charge are expected to comply with the official codes, regulations and standards of practice. When in doubt concerning matters of safety, department heads should seek the advice of the safety coordinator.

Careful investigation of accidents, whether they involve buildings, grounds or automobiles, discloses that human failure is usually the main cause. The two most effective ways of preventing accidents are education and the removal of hazards. Obviously, the coordination of such a diversified program requires the leadership of one person whose constant vigilance will maintain and improve safety in every phase of the complex environment which makes up a college campus.●

December 1959



S-1647-A

lower elementary

safety lesson

Happy Holiday Month

December is the month of holidays.
We have a happy time.
We have parties.
We give and receive gifts.
We make lists of things we would like to have.

We Can Wish to Be Safe as Well as Merry

Would you like to play **The Wishing Game?**

Here is what you do:

Pretend that you are something
that goes with December.

Make a wish for that object.

Draw a picture of it.

Here is an example



A Christmas Tree

I am a Christmas tree.

I want to stay fresh and green.

I want water in my holder.

I like to be in a cool room.

Then I won't catch on fire.

A Toy

Draw a picture here:

I am a toy.

I want boys and girls to play with
me.

I want to be put away when they
are through playing with me.

Then no one will stumble over me.

*Draw a toy where it should be when
you finish playing with it.*



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each for 10 to 49 subscriptions; minimum order 10;
lower prices for larger quantities; order by stock no.
461.01-1. Write the Council, membership department.

Prepared by James Mann, principal, Hubbard
Woods School, Winnetka, Ill.; past general
chairman, Elementary School Section, National
Safety Council.

A Candle

Draw a picture here:

I am a candle.
I want to stay pretty.
I want to keep my shape.
I don't want to be burned.
I don't want to set a fire anywhere.

Draw a pretty candle.

Draw a picture here:

Christmas Tree Lights

*Draw a tree with
lights on it.*

I am a string of Christmas tree lights.
I want to brighten the tree.
I don't want any tinsel touching me.
I want people to turn me off when they leave
the room.
Then there will be no danger of fire.

A Waste Basket

Draw a picture here:

I am a waste basket.
I want to help at holiday time.
I can hold all the paper wrappings.
If everyone will use me, we may prevent a fire.
We may prevent a fall.

*Put waste paper
in the basket.*

Boys and Girls: These stories tell us how to enjoy our holidays and be safe too. Would you like to draw pictures and make up some "Wishing Game" stories for other holiday things? Here are some ideas:

Step ladder (for climbing up to hang decorations)
Dart game (rubber suction cups instead of sharp points)
Sled (show safe place or safe way to slide)

Take these stories home and show to your parents.

December 1959

upper elementary
safety lesson

Danger in December



S-1647-A

GIFTS . . . PARTIES . . . MERRY . . . FESTIVE . . . FUN . . . FAMILY

These are words that we hear in December. They are happy, pleasant words. There are other words, too . . .

HAZARDS . . . DANGER . . . FALLS . . . FIRES . . . HURT

These words are not pleasant. They can spoil our holiday fun and may even be tragic.

How can we be sure that *accidents* will not spoil our holidays? In the picture below there are more than 10 dangerous things that are happening. Can you spot them? Make a list of them and tell what is dangerous about each one. (The answers are on the next page.)



What's Wrong With This Picture?



Published by the National Safety Council. Price \$28 each for 10 to 49 subscriptions; minimum order 10; lower prices for larger quantities; order by stock no. 461.01-2. Write the Council, membership department.

Prepared by James Mann, principal, Hubbard Woods School, Winnetka, Ill.; past general chairman, Elementary School Section, National Safety Council.

Clues to "December Dangers" . . . (The pictures tell the answers.)

Many holiday accidents happen in the _____



Decorations and trimmings are dangerous when made of _____



Bad falls happen when people _____
or _____



Children often fall down when they _____



Christmas trees are likely to catch fire when they are _____



Trappings and waste paper should be immediately put into _____



Be sure to buy tree lights that have an _____ on them.



Before being used, tree lights should be checked for _____



Candles should never be _____



Keep the Christmas tree away from _____

ANSWERS TO: "What's Wrong In This Picture?"

1. Christmas tree is not in a water container.
2. Electric cords strung around the room.
3. Lighted candles.
4. Frayed cord on tree lights.
5. Wrappings strewn over the floor.
6. Paper resting on the extension cord.
7. Standing on a chair to hang trimmings.
8. Tree almost tipping over—not anchored.
9. Paper trimmings (daisy chain) touching light cord.
10. Christmas tree too near fireplace.
11. No screen at fireplace.
12. Child reaching too high.

December 1959



S-1648-A

junior high school

safety lesson

Home and Holiday

Use Reason This Season

The month of December is a dangerous month. True, it is supposed to be a month of gladness and joy. In many instances, however, the joy is erased by needless accidents. If you consider the various potential dangers of this season, you can use reason and avoid the pitfalls. Here are some of the most prevalent dangers.

Travel

During this month, many people will travel greater distances than usual. For example, some of you may be returning from a vacation in the South, some from ski lodges or hunting camps, and some from visiting relatives. In all cases, the tendency might be to stay longer than originally planned—then rush to get back home on time.

The safe practice is to allow yourself plenty of time for the return trip so that you will have an enjoyable and safe return trip—as shown in the poster picture above.

Here are some items to consider for this situation. Write in the safe practice after each:



A. You'll usually return with a larger car load—gifts, souvenirs, etc.—than when you started. This calls for _____

B. Since there is always a possibility of a change in the weather, you should plan for _____

C. Careful planning in regard to routes to be followed is a good practice, but often roads are being fixed and detours are necessary. This calls for _____

Emotions

Your emotions play an important part in safety. A basketball player under the emotional stress of a close game often misses an easy shot that he would make every time during practice. The same problem exists during this holiday season. Errors in safe practices are made that wouldn't be committed under ordinary conditions. The rush-rush-rush of this season causes dangerous stress and tension.



Consider the following situations, and plan to overcome the tension in each by writing in the safe action you plan to follow.

A. If you wait until the last minute to do your Christmas shopping, stores and streets will be crowded. Therefore, you should _____

B. You will probably decorate the house and use various electric equipment. To avoid accidents, you should _____

C. A fatigued person is not an alert person. In order to be alert to possible dangers, and to get things done efficiently, you should _____



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Prepared by Dr. Vincent McGuire, associate professor, Secondary Education, Department of Education, University of Florida, Gainesville, Florida.

Winter Sports

Winter sports are fun and are good for you—if you follow safety rules. Each year, however, people are injured and killed while engaging in winter sports. See if you can stay off the accident list by developing and following safety rules for these situations:

A. Gifts of new sports equipment at Christmas are always a delight, but they can cause accidents. In order to avoid accidents you should _____



B. Although the willingness to share your sporting equipment with others is commendable, you must remember that _____

C. The makers of sports equipment always advise the user in regard to the best conditions for using the equipment. Therefore, you should _____

Answers

Travel: A. Pack your car carefully—start sooner than usual so you will do a good job of packing; B. Carry necessary car equipment for a weather change—tire chains readily accessible, etc.; C. Always plan alternate routes *beforehand*, and always leave enough “spare” time to allow for road delays.

Emotions: A. Shop early with a list—and include “alternate” gifts on the list; B. Check all electric wires, tie down Xmas tree and decorations securely, and provide proper recep-

tacles for waste; C. Get enough sleep, get up early enough to get things done, watch your diet.

Winter Sports: A. Familiarize yourself with skis, skates, sleds, and other equipment *before* you use them in places where other people, who are familiar with the equipment, are engaged in sports; B. Overloading or “doubling up” on equipment meant for one is dangerous; C. Read directions carefully before you use the equipment.

Home Is Where the Hazards Are

Associated Press Release—Oct. 14, 1958

Actor John Payne, 46, was hospitalized with a severe chest injury when he slipped in the shower of his home. He will be in the hospital several days.

Many of you have seen various “action” pictures made by John Payne. He has fallen off buildings, horses, and performed numerous other dangerous stunts. However, he was injured in the “security” of his home.

In order to improve your writing ability and your knowledge of home safety, take the following test.

Directions: Each group of sentences is actually one original sentence expanded to include more words than are needed. Cut out the unnecessary words, reducing each group to *one sentence* containing the number of words, or less, indicated in parentheses.

1. In order to prevent falls, all stairways should be well lighted. Toys, shoes, and other objects should not be left on the steps. The stairways should be well constructed, and the bannisters should be anchored securely. No clothing should be left hanging on the bannisters. (*Reduce from 45 to 20 words or less.*)

2. The medicine cabinet can be a danger area. Too often “overage” medicines, unlabeled bottles, and poisonous liquids are within easy reach of

young children. In order to keep the medicine cabinet clear of these dangers, it should be regularly inspected from time to time. (*Reduce from 44 to 21 words or less.*)

3. Fires in the home often occur as a result of faulty wiring in electric appliances such as lamps, waffle irons, and the like. In order to prevent fires, the wiring of electric equipment should be carefully checked before it is used. (*Reduce from 41 to 15 words.*)

Answers

1. In order to prevent falls, have well-constructed stairways and securely anchored bannisters free of all objects, and well lighted.

2. A medicine cabinet should be checked at regularly scheduled intervals so that its contents can be changed, properly labeled, or discarded.

3. In order to prevent home fires, always check the wiring of electric equipment before using.

And—there's only one way to say:
MERRY CHRISTMAS!

December 1959

senior high school safety lesson

Home and Holiday

Return Home Safely

This is the season when many of you will travel to visit relatives, go South for vacations, go North for hunting or skiing, or return home from private schools. Many people will be rushing to get places and "pack in" all the things they want to do. Consequently, the traffic accident rate reaches a peak in December. In fact, the day most traffic accidents occur is usually the day before Christmas. This is a sad commentary on the "Peace on earth" scene that we would like to see prevail.

One of the major factors causing the high accident rate is that many travelers do not budget enough time for the return trip home. The decision to "stay just one more day" beyond the scheduled time for departure often necessitates night driving, and causes the motorist to drive at excessive speeds. Since this is the time of year when weather and road conditions are uncertain, night driving and excessive speed are extremely dangerous.

Look at the poster picture above, and re-read the slogan. If you "make way" while the sun shines, you will cut down on the chances of having an accident. Also, if you do have an accident, facilities for help—police-men, ambulances and doctors—are more readily available during the daylight hours than they are late at night.



Don't gamble a life or a lifetime of injury for "just one more day" of enjoyment. If you travel, drive while the sun shines—and get plenty of sleep at night.



S-1648-A

When You Get Home—Be Safe!

The total number of home accidents in 1956 resulted in 4,200,000 injuries and 28,000 deaths. Although, over a 30 year span (since 1928) the total *number* of home accident fatalities has increased, because of our expanding population, the *rate* of deaths due to home accidents has *decreased* 41 per cent.

This data suggests two major conclusions: (1) that we are making headway in our safety programs as indicated by the decrease in the death rate, and (2) that we must continue our efforts in home safety as indicated by the increase in the total fatalities.

You can increase the effectiveness of a home safety program by obtaining copies of the National Standard Check List for Teaching Home Safety from Mrs. Lucile Bush, Consumer Education Director, S. C. Johnson Co., Racine, Wis. This material is free and may save many dollars and many lives.

Other materials on home safety may be obtained from local safety councils, insurance companies and associations and local boards of health. They, along with police and fire departments, PTA, and other civic organizations carry on important work, distribute useful materials and help prevent home accidents.

It boils down to this: chances are that several students in your school will be affected by a home accident tragedy this month—unless—you do something to prevent home accidents. Based on the home accident injury rate, one person out of every 40 in the U. S. will suffer a home injury this year. Make certain your student body doesn't figure in this rate.



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Prepared by Dr. Vincent McGuire, associate professor, Secondary Education, Department of Education, University of Florida, Gainesville, Florida.

Can You Write It Better?

Listed below are groups of sentences which contain good advice in home safety. The sentences in each group, however, contain superfluous words which, when cut out, will enable you to combine all the main ideas in all the sentences into one good sentence.

See how well you can do with these groups of sentences by having competition between rows of students in your room. Here are the assignments:

Row	Sentence Group Assignments
1 vs. 4	A and B
2 vs. 5	C and D
3 vs. 6	E and F

Instructions:

1. Each student should attempt to combine the group of sentences assigned his row into one

good sentence for each group, using the number of words indicated in the parenthesis.

2. After each student has finished, all the students in one row may compare answers and determine which student's sentence is the best for each of the two groups assigned.

3. After step 2, the teacher will then ask representatives to write their "best" sentences for Groups A and B on the board.

4. The class will then discuss the sentences in regard to completeness, correctness, and structure. After discussion, the remaining rows will vote for the better sentence in each case.

5. The same process should be repeated for the remaining rows, until all 12 (6 "best" vs. 6 "best") sentences have been written on the board.

For Rows 1 and 4

A. Kitchen knives should be kept in a storage rack. Ice picks should be placed in a rack which covers the sharp point of the pick. Can openers and food choppers with sharp edges should be kept in a cabinet. (Reduce from 39 words to one sentence with 16 words or less.)

A. _____

B. Dangerous liquids such as lye, bleaches, ammonia, and the like, should be kept on a high shelf or in a cabinet unavailable to children. All cleaning compounds and house insecticides should be properly labeled and put in a safe place. (Reduce from 40 words to one sentence with 12 words or less.)

B. _____

For Rows 2 and 5

C. In winter when ice forms on your porch steps and on your sidewalks or walkways, walking becomes dangerous. An abrasive such as sand or ashes should be sprinkled on those icy surfaces. (Reduce from 32 words to one sentence with 13 words or less.)

C. _____

D. Many short circuits occur because of frayed and worn electric cords; therefore, all lamp, kitchen appliance, radio, and television cords should be inspected from time to time. In addition, oversized fuses and pennies often cause short circuits; therefore, they never should be used. (Reduce from 43 words to one sentence with 19 words or less.)

D. _____

For Rows 3 and 6

E. Many falls are caused because toys, brooms and other household items are left scattered on stairways and floors. Rumpled rugs and misplaced furniture also cause falls. (Reduce from 26 words to one sentence with 8 words or less.)

E. _____

F. Discarded papers, rags, magazines, etc., are often burned in an open fire in the yard, thus causing many home fires. The rate of home fires can be reduced a great deal if the above mentioned items were burned in a metal drum, stone incinerator, or similar receptacle. (Reduce from 47 words to one sentence with 16 words or less.)

F. _____

Suggested Answers

A. Kitchens should be equipped with protective storage racks or cabinets for cutting or pointed utensils.

B. Dangerous household liquids should be properly labeled and kept in safe places.

C. Icy walk areas are dangerous and should be sprinkled with sand or ashes.

D. In order to prevent short circuits electric cords should be checked regularly, and proper sized fuses should be used.

E. Many falls are caused by careless housekeeping practices.

F. The rate of home fires can be drastically reduced if trash is burned in proper receptacles.



HAVE A SAFE AND (THEREFORE)
A MERRY CHRISTMAS!

SAFETY EDUCATION

Planning for January

It's now time to begin setting up your program and school activities for January. Why not correlate with your daily lessons some of the features from next month's SAFETY EDUCATION Magazine.

- Data sheet on the safe use of pesticides in the home and home garden.
- A teenage rocketeer explains the dedicated purposes and goals of present day amateur rocket societies.
- Ways to integrate safety education into a basic elementary English class.
- Safety education supervisors' work sheet outlining monthly tasks and projects for a city school system.
- Description of the organizational structure and activities of the safety program at Pennsylvania State University.
- A detailed outline for a thorough motor vehicle inspection—especially applicable for driver education teachers to use during the winter months.
- Detailed explanation of accident prevention in a rural school.

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The Title Page

Books and pamphlets of interest to safety educators

By Lois Zearing
Director, NSC Library

Alcohol

Teaching Alcohol Education in Schools. A. J. Atkins and J. Minor Gwynn. The Macmillan Company, New York. 1959. 190pp. Price \$3.20.

This book is written for teachers and school personnel who are interested in providing school instruction about alcohol. The authors do not look upon alcohol education as a new subject to be brought into the curriculum but rather as a subject matter related to the fields of health, safety and social problems.

The book consists of two parts, the first dealing with the effects of alcohol on human beings and society, the second with alcohol education in schools. Two resource units are included. One provides a wide variety of activities and evaluation techniques; the other provides bibliographical references and sources of materials. Material also includes the relationship of alcohol and accidents.

Bicycles

Jaycee Community Bicycle Safety Work Kit. U. S. Junior Chamber of Commerce, Boulder Park, Box 7, Tulsa 2, Okla.

Kit gives instruction for conducting a bicycle program along with sample releases and a mayor's proclamation.

Child Safety

Beware of Strangers. U. S. Junior Chamber of Commerce, Boulder Park, Box 7, Tulsa 2, Okla.

A leaflet giving rules for children and parents on what they should do in case they are approached by strangers and to avoid places where they might be molested.

Conferences

Teacher Preparation in Safety Education: Proceedings, Wisconsin Conference for College Instructors of Safety Education. Edited by Charles Peter Yost. 1959. 129pp. Dept. of Education, University of Wisconsin, Madison, Wis.

The final report of a conference on problems in teacher preparation in safety education including driver education.

Driver Education

A Guide for Driver Education. 1959 Tentative Report. 83pp. Hubert Wheeler, commissioner of education, Jefferson City, Mo.

A guide for driver education in Missouri schools, which includes history, organization and administration, instructional program and instructional materials.

Fire Prevention

Fire Safe Schools. Aug. 1959. 22pp. National Board of Fire Underwriters, 85 John St., New York 38, N. Y.

This pamphlet presents in brief form the essential elements for fire safe school buildings and gives recommendations for fire safety in new and old buildings.

Fire Safety. 1959. 16pp. State Board of Education, Raleigh, N. C. (North Carolina Public School Publication No. 329)

The purpose of this publication is to acquaint officials with school fire safety laws; to define legal responsibilities of school officials; to assist teachers in fire safety instruction; and to outline procedures for informing school boards and officials of fire prevention measures taken and potential hazards existing in school plants.

Home Inspections by Fire Departments. 1959. 40pp. Federation of Mutual Fire Insurance Companies, 20 N. Wacker Dr., Chicago 6, Ill.

This booklet gives a summary of methods used by many fire departments to develop a community-wide fire inspection program.

Health

Fit for College. 1959. 24pp. American Association for Health, Physical Education and Recreation, 1201 Sixteenth St., N.W., Washington 6, D. C. 50c.

A report of the College Physical Education Association, emphasizing the contributions and importance of appropriate use of physical education. Also presented are ideas and suggestions as well as safety principles for sports participation, which will be useful to college students.

Poison Peril in Your Home. W. W. Bauer. 1959. 14pp. Good Reading Rock Service, Division Koster-Dana Corp., 76 Ninth Ave., New York 11, N. Y.

A booklet on what you can do to prevent poisoning and what to do if someone is poisoned.

Safety Renaissance

from page 25

How can educators and the public help meet the safety needs of the sixties? Norman Borger-son, consultant, Safety Education and Civil Defense, Michigan State Department of Public Instruction, set up a few targets:

"Selecting priority targets for citizen leadership in the education program is difficult. Nevertheless, it seems there are three matters that could very well be selected as absolutely essential, if the schools are to develop good on-going safety programs:

"Priority No. 1 would be the designation of a safety officer in every school.

"Priority No. 2 that should and can be reached with strong citizen support is the requirement that no boy or girl under the age of 18 be permitted to drive a motor vehicle, scooter, or motorcycle unless he has taken and passed an approved course in driver education.

"The third priority and the one most difficult to accomplish involves, as we see it, our teacher training institutions. Every professional educator knows that with the exception of driver education, it isn't wise to introduce a course in safety. It should be taught in every course from arithmetic to foreign languages. But the difficulty arises by virtue of the fact that so few teachers today receive any general background of information about safety and safety conditions and ways of teaching safety during their regular college courses. I, therefore, recommend for high priority support from citizens that we work with every college until all teachers receive a teaching unit in safety as a part of one of the required courses."

In recognition of their outstanding work as section chairman, awards were presented to the following: Virginia Wheeler, supervisor, safety and school lunch, Jefferson County Public Schools, Louisville, Ky., retiring supervisors section chairman; Russell Brown, president, Insurance Institute for Highway Safety, Washington, D. C., retiring driver education section chairman; Bertha Trunnell, principal, Kenwood Elementary School, Louisville, Ky., retiring elementary section chairman; John Hill, personnel insurance and safety director, Texas A & M College System, College Station, Tex., retiring higher education section chairman. Awarded for

his outstanding work as chairman of the School and College Conference was J. Duke Elkow, professor, Brooklyn College, N. Y., who was elected to head up the Conference again for the coming year. Vice President for Schools and Colleges, Lowell B. Fisher, chairman, The North Central Association of Colleges and Secondary Schools, University of Illinois, was presented an award by NSC President Pyle for "outstanding and devoted service as vice president from 1953 to 1959." Fisher was elected for another year.

Pyle told delegates, "We need people who are talented, interested and able to carry out the job in this field of education for promoting safety." This is the challenge facing the incoming section chairman: elementary—Ruth Jewell, state music consultant, Raleigh, N. C.; supervisors—Lewis Clark, director of safety, Lansing, Mich., Public Schools; driver education—John Haack, coordinator, Audio-Visual and Safety Education, Davenport, Iowa, Public Schools; and higher education—Arthur Brandstatter, director, School of Police Administrators, Michigan State University, East Lansing.

These people know "safety is alive. It's exciting." They're our leaders for this coming safety renaissance. ●

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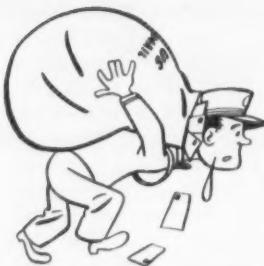
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Calls for crash program

Webster, N. Y.—With the forecast of the future in the various fields of endeavor from population growth through technological advance of nuclear research, it seems rather unfortunate that more consideration has not been given to forecasting the needs of safety education.

If the world is to progress as we know it will, then one of our first great needs is a re-evaluation of educational goals; not from the standpoint of the arts and sciences alone, but from a more basic point of view.

Should we not try in the next 10 years to integrate into our complete educational system a program of safety education which will start at the kindergarten level and continue in every phase of safety through the doctorate?

No doubt the statements of the educators will be that we lack qualified instructors to accomplish such a program. Perhaps this is correct; however, our institutes of higher learning are graduating classes

today which in many ways are not unlike classes of a decade ago. Safety education in our educational system is many years behind the advances of technology, medicine, automobiles and every other field.

Men and women are better trained, educated and conditioned for almost everything but *safe living* by the educational groups.

I do not mean to say that no work is being done in this field. There are several colleges that have elective courses in traffic and industrial safety, several colleges where a degree may be earned in the safety field. These are heartening, for leaders in the safety movement must be trained by the thousands now.

I feel, however, that each college student in school today should be *required* to take courses in the three areas of safety which most affect common everyday living. These three areas are transportation, home and occupation. Those students who later teach our children should be required to teach safety in each class, each new field, each day to all students. No elective choice should be permitted.

We must start a high speed crash program, train our teachers now, then educate the nation through our school system as soon as possible.

The children of today are our leaders, educators, government, and safety engineers of tomorrow.

"Safety In The Sixties," yes, through education of our children.

Earl R. Wallace, safety engineer
Kodak Park Works

Ed note: This letter was a contribution to the NSC's recent publication, Safety in the Sixties, a compilation of forecasts in all fields on what advancements and changes will be seen in the next decade, and what safety problems these changes could bring.



Working for Safe Christmas

A SAFE and a merry Christmas—that's the goal of the National Safety Council's Christmas Holiday safety campaign.

In keeping with the true spirit of the Christmas season, a time of goodwill to all, the Council is alerting Americans to the special holiday hazards that are a menace to life, health and property.

The campaign from Dec. 1 to Jan. 2 will be sparked by the Council's national committee of religious leaders for safety, headed by Arthur B. Langlie, former governor of Washington, currently president of the McCall Corp.

During the campaign, the Council will enlist the support and active participation of church, civic, business, labor and media groups to make this year a safe as well as a merry holiday season.

"If, as the campaign progresses, what we have to say begins to sound like a sermon, we do not apologize," Langlie said. "We all need some heart-to-heart preaching now and then, and we all need to practice more of what we hear and what we ourselves preach. We must never forget, no matter how hurried the times, that each

of us has a *moral obligation* to protect the welfare of our fellow man."

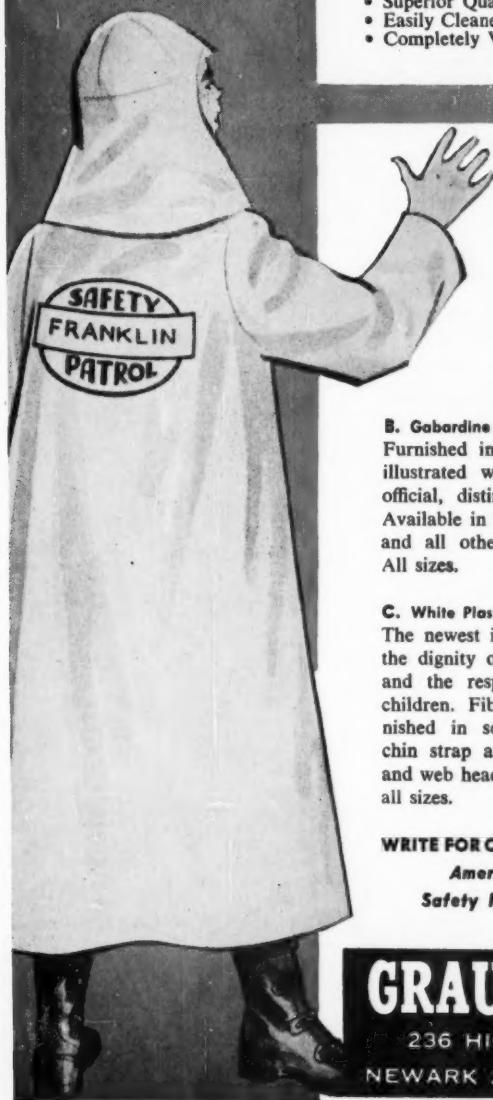
The campaign will include appeals to "dry up" the Christmas office party and, in general, to avoid the danger of drinking in connection with driving and walking—especially after holiday parties.

Safety warnings on the proper use of toys, Christmas trees and decorations will also be featured in the holiday accident prevention campaign.

While the committee will spearhead the campaign among church leaders on the national, state and local levels and in the religious press, all safety and civic groups will be urged by the Council to (1) include safety reminders and suggestions in their own Christmas programs and materials, emphasizing moral responsibility as particularly an appropriate motivation during the holiday season, and (2) to suggest to their pastors that safety be part of their regular Christmas sermons and greetings.

A kit of special Christmas campaign materials is available to citizen groups and safety organizations. Write: Christmas Holiday Safety Campaign, NSC.

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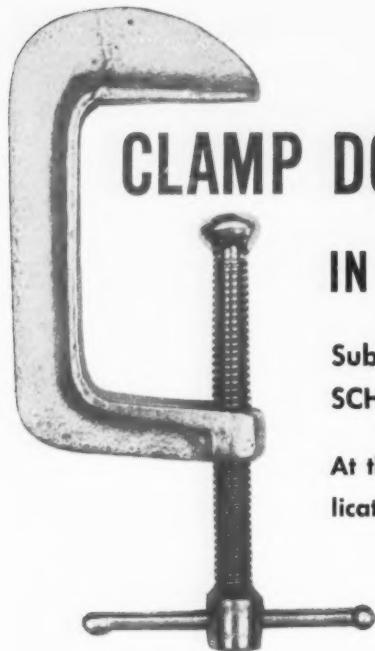
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SAFETY EDUCATION

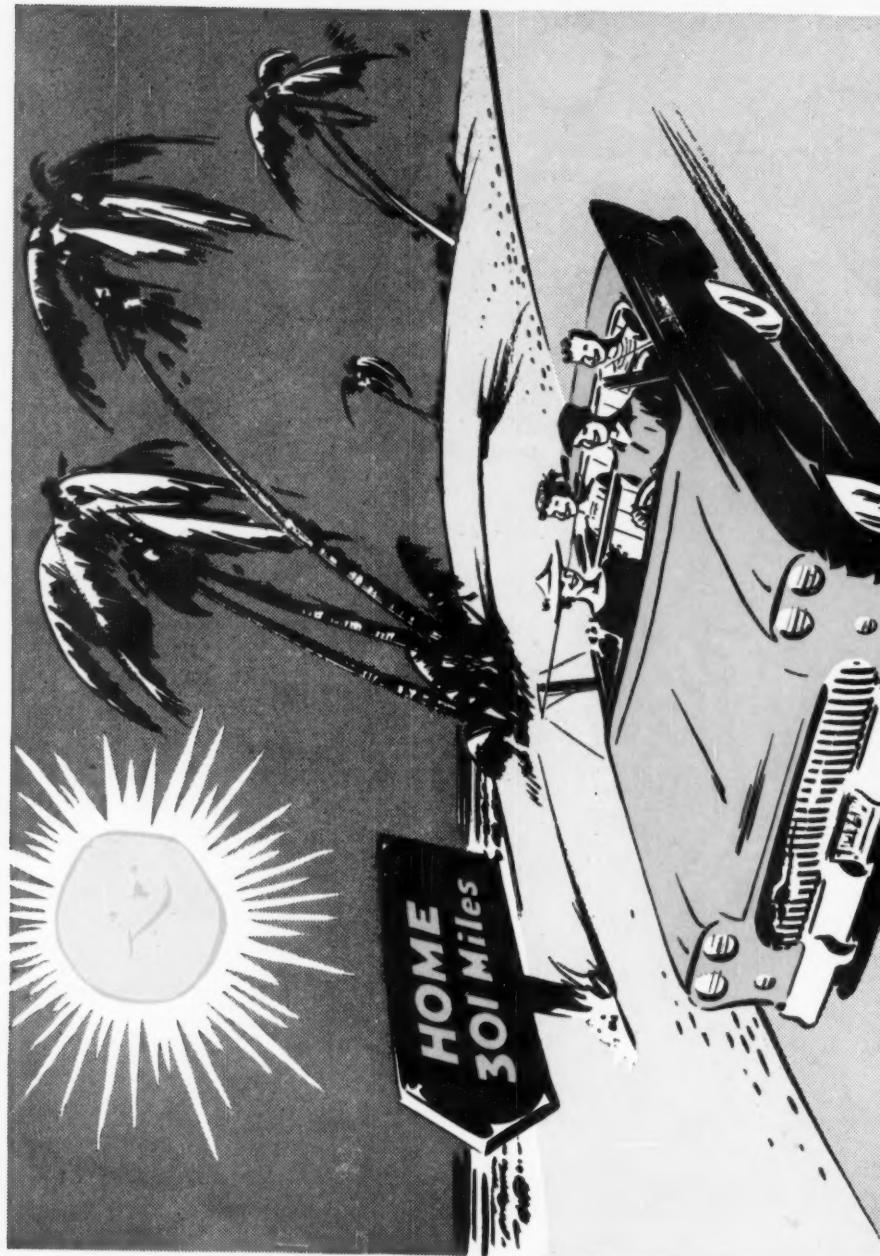
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